REPORT

ON THE

ADMINISTRATION OF THE N.-W. P. & OUDH,

FOR THE YEAR ENDING 31st MARCH, 1882.

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NORTH-WESTERN PROVINCES AND OUDH GOVERNMENT PRESS.

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REPORT

ON THE

ADMINISTRATION OF THE N.-W. P. & OUDH

FOR

1881-82.

General Summary.

THE Government of the North-Western Provinces and Oudh during the year 1881-82 was administered by the HON'BLE SIR GEORGE E. W. COUPER, *Bart.*, C.B., K.C.S.I., C.I.E., as Lieutenant-Governor and Chief Commissioner.

The rainfall for the Provinces during 1881-82 was only 32·1 inches; but while this was 18·6 inches less than in the preceding year, it was considerably above that of 1877-78 and 1878-79. The agriculture of the year depends practically upon the periodical rains, and the fact that the fall was both deficient in quantity and somewhat untimely in distribution augured badly for the Provinces. The actual result was, however, not so unfavourable as might have been anticipated. The autumnal harvest was, as a whole, below half an average crop, but the spring harvest was for the most part good. Prices were lower than they had been for several years before—a result due partly to the plentiful stocks in hand, and partly to the rapidly improving means of communication, which tend to render prices to a great extent independent of local harvests. The health of the people was generally good, a severe outbreak of fever in the Tarái being the only exception. The cattle suffered in the Jhánsi and Allahabad Divisions, owing to failure of water and insufficiency of fodder, but elsewhere there was no serious mortality.

The most important events in the internal administration of the Provinces during the year were the revision of the financial arrangements between the Imperial and the Local Governments and

the inauguration of the policy of local self-government. Towards the close of 1881 the Supreme Government issued Resolutions explaining the method upon which it designed to adjust the financial relations between itself and subordinate Governments, and indicating the lines on which it was considered desirable to extend the principle of decentralisation by investing the local executive bodies with larger powers, administrative and financial. The financial arrangements for the Provinces were completed within the year under report, and came into force from the 1st of April, 1882. The development of the scheme of local self-government had advanced several stages when the year closed, but it was then still far from completion. The entire subject of local self-government will fall more conveniently within the report for the year 1882-83, and all that is at present necessary is to give a brief summary of the main points dealt with in the year under report.

As regards Provincial finance, the policy of the Government of India was in the direction of still further decentralisation. The heads of income and expenditure under the control (entire or partial) of the Local Government were increased in number, so as to include all but a small number of items specially appertaining to the Imperial fisc; while equilibrium between Provincial income and expenditure was to be secured by the allotment not of a lump sum as formerly, but of a percentage of the land-revenue, a source of income hitherto reserved as an Imperial head of account. The effect of these arrangements was to give to the Local Government an extended sphere of financial activity and responsibility, and to interest it directly in the careful management of the revenue derived from the land. It is needless at present to enter into any details. These will be discussed when the first accounts under the new system are examined and reviewed in the report for 1882-83.

In respect to the changes in the constitution of the local governing bodies in the districts and towns, the action taken was also markedly in the direction of decentralisation. A series of Resolutions was issued by the Local Government, laying down the principles determined on and giving details of the new arrangements. The district committees, which had existed for years in these Provinces, were re-organised and the non-official element greatly strengthened. Under the heads of Education, Medical Charity, and

Public Works the powers of these committees were defined, the object being to vest these bodies with a much larger share of authority in these departments than they had before enjoyed. Thus, all schools up to and including *Zila* or District schools, and all dispensaries, were placed under their immediate control, subject to certain conditions necessitated by the existing circumstances. In the Department of Public Works the functions of the committees were greatly widened, all local buildings and roads being transferred to their charge, and a portion of the general establishment being made over to them. For the administration of these institutions and works an allotment was made to each district on the basis of the several budgets; and this amount, subject to standing orders as to check and audit, and to rules of business issued subsequently, was made over to each committee to expend on the sanctioned objects. The arrangements thus described came into operation during the current year. But subsequent orders received from the Government of India has necessitated their revision. This has recently occupied the attention of the Government, and has resulted in material alterations in the system, which will, it is hoped, come full generally into operation from the year 1883-84.

Political.

In political affairs the year was uneventful.

The discussion regarding the succession to the Gursarai estate in the Jhánsi district continued to demand the attention of the Government. The death of the Rája Kesho Rao left matters in a state of confusion. His sons were at variance as to the succession to the headship of the family, and as to the question of the allowances to be paid by the head of the family to its other members. In regard to the first point, it was ultimately decided that, in pursuance of the arrangement entered into by the family in 1868, Atmarám should be recognised as the head of the family, with the title of Rája and the management of the estates; but nothing was decided as to the succession after his death. The Government offered to arbitrate as to the allowances to be made to the other members, but this plan did not commend itself to the family, which has been told that, in default of their accepting this arbitration or arranging matters among themselves, they must resort to the civil courts for a settlement of their disputes.

Discussion as to the demarcation of the Nepál boundary was continued, the plan eventually advocated being the reservation of a neutral slip of uncultivated land, 30 feet in width, on each side of the boundary line. A case of disputed boundary between British and Rámpur territory was brought to notice during the year. The Kosi is the recognised boundary along a portion of the line between the two States, but a change in its course and difficulties as to the application of the deep-stream rule have originated the pending dispute. On neither of these cases had final orders been passed by the close of the year under review.

The question of the treatment of Muhammadan pilgrims to the Hedjaz, referred by the Government of India, was considered, and the views of the Local Government were forwarded for orders. The measures suggested to facilitate the journey, and ameliorate the hardships, of the pilgrims were shortly, (1) the grant of passports in the districts of their residence to all intending pilgrims, and (2) the entertainment of agents at the ports of embarkation to give advice and assistance to all who might be in need.

Legislation.

There was very little legislation during the year that specially affected these Provinces. The Rent Law in force in the North-Western Provinces (XVIII. of 1873), having been found to require amendment in several important points, was revised, and eventually repealed; Act XII. of 1881, which became law on the 1st April, 1881, replacing it on the Statute Book.

The enactments defining the position of the Rája of Benares in the Family Domains (Regulations XVII. of 1798 and VII. of 1828) had for some years been under the consideration of the Government, and it was found necessary to amend the older provisions so as to bring them into harmony with the altered circumstances. The amendments and alterations which were finally decided on became law under the title of Act XIV. of 1881.

The arrangements under which the patwári cess was abolished in the North-Western Provinces, and all patwáris in Oudh constituted servants of the State, were embodied in Act XIII. of 1882, which came into force on the 10th March, 1882. The measures taken to give effect to this change will be explained in the Report

for 1882-83. All the other legislation of 1881-82 either affected the Provinces as included in British India generally or did not affect them at all. Numerous additions to, and modifications of, existing rules, under various enactments, were made during the year, but none of them require special mention.

Finance.

In last year's report the closing balances were put at Rs. 64,08,000 Provincial and Rs. 25,95,000 Local, total Rs. 90,03,000 ; but subsequent amendments resulted in the following amounts being accepted as the closing figures of 1880-81 and the opening ones of 1881-82 :—

	Rs.
Provincial	66,66,000
Local	25,74,000
Total ...	92,40,000

So far as is known, the transactions of the year under report were approximately as under :—

		Rs.
(1) Receipts ...	Provincial	3,16,71,000
	Local	83,07,000
	Total ...	3,99,78,000

		Rs.
(2) Charges ...	Provincial	2,48,99,000
	Local	1,06,69,000
	Total ...	3,55,68,000

The closing balances were thus as follows :—

	Rs.
Provincial	1,34,37,000
Local	2,13,000
Total ...	1,36,50,000

Further details will be found in the chapter devoted to provincial finance. The gradual utilisation of these large balances on provincial projects of various kinds had been finally determined on before the close of the year under review.

Instructions were issued requiring the purchase in local markets of all stores procurable thereat of good quality and reasonable price. In regard to other classes of stores, the restriction of purchase

through the office of the Secretary of State was maintained. The question of the further simplification of audit of contingent expenditure in public offices was considered, and measures taken to secure the object in view. And arrangements were matured for the transfer to the Comptroller-General of the custody and care of all Government Promissory Notes held by public officers *ex-officio*.

Revenue.

(*a*) In the North-Western Provinces, out of a fixed demand of Rs. 4,29,17,583, Rs. 4,18,44,953 were realised in the year; and the doubtful and irrecoverable items are very small. In Oudh the corresponding figures were—demand, Rs. 1,40,33,929, collections Rs. 1,37,18,541. The early part of the year was a somewhat trying one, both for rent and revenue-payers; but the moderate extent to which resort was had to coercive processes, and the freedom with which suspensions were granted, show that no undue pressure was brought to bear in realising the land-revenue. Liberal advances were made under the Land Improvement and Takávi Acts during the year; and the suitableness of the simplified rules under the latter Act was proved by the increase in the number of advances throughout the Provinces.

(*b*) At the instance of the Government of India a set of rules was compiled regarding the reservation of the rights of the State to mines and minerals. In the case of waste land grants these rights are sufficiently guarded by the rules in force, as all rights in mines and minerals are reserved, and the rules provide for the right of access to and reasonable facilities for working the same. The draft rules laid down that no Government land of any kind, whether waste or not, should be disposed of by lease or grant, or in any other way, without the reservation of the right to mines and minerals below the surface, as well as of the right of access to and reasonable facilities for working the mines on the part of Government or its assignees.

(*c*) An extract from the report of the Famine Commission regarding the dates fixed for the payment of the instalments of land-revenue, which was forwarded by the Government of India, led to an inquiry as to how far the principles approved by the Famine Commission had been observed in regulating the instalments

of revenue in these Provinces, and as to whether any further changes were called for. This question had been the subject of discussion by the Local Government as far back as 1878. The view taken by the Famine Commission was that the number of instalments, the amounts payable on each occasion, and the dates when they fall due, should correspond to the number of main crops raised, to the average date when these crops come to maturity, and to the relative outturn and value of the crops; also that where the relation of landlord and tenant exists, the dates for the payment of the land-revenue should fall a sufficient time after the period of harvest, in order to allow tenants to realise on their crops before paying their rents, and to enable landlords to collect the rents before the revenue becomes due. These general principles have long been acted on both in the North-Western Provinces and Oudh. It has been the constant endeavour of the Government to arrange the dates and amounts of the revenue instalments in such a manner as to correspond with the particular harvest from which the instalment has to be paid. With this object the revenue instalments payable at the autumnal harvest, which is a harvest of grains for home consumption as opposed to market grains, have generally been fixed at a smaller amount than those of the spring harvest; while on the spring harvest (including that of sugarcane) has been generally imposed the larger share of the revenue. And the dates of payment of land-revenue in the North-Western Provinces and Oudh have been prescribed with reference to the dates on which rents are payable by tenants, and these again follow the in-gathering of the harvests. District officers were, however, asked again to examine carefully the instalments at present fixed, and to propose any changes they might consider advisable. In the answers received the changes suggested were few and unimportant, and the conclusion arrived at was that the present system is on the whole well adjusted.

(*d*) The Land-revenue and Rent Acts of the North-Western Provinces and Oudh have the force of law in these Provinces only, and when it becomes necessary to serve or execute processes issued under those Acts on persons residing outside the local limits in which the Acts are in force, the legality of the service or execution may be called in question. The Board of Revenue ruled that a Collector in the North-Western Provinces is not in a position, under the

existing law, to execute on a person residing in his district processes issued by a Deputy Commissioner in Oudh under the Oudh Rent Act. A similar legal difficulty might also arise in case the persons on whom a Collector in the North-Western Provinces or Oudh might wish to execute processes resides in Bengal, the Punjáb, the Central Provinces, or in any other province or administration in British India. It was therefore suggested to the Government of India that it would be advisable to pass a short Act of general application, making revenue and rent processes capable of execution throughout British India in the same way as processes of the civil courts are now capable of execution under the Civil Procedure Code. The matter was still under consideration at the close of the year under report.

(*e*) Rules were framed under section 4, Act III. of 1879 (The Destruction of Records Act) for the systematic removal and destruction of useless records of vernacular revenue offices, and also for the disposal of English records, books, and papers belonging to, or in the custody of, revenue courts and offices; and these have been sanctioned by the Supreme Government. The want of some such rules had long been felt, and all offices were becoming overcrowded by the accumulation of files and papers, many of which could be destroyed without any risk of inconvenience hereafter.

(*f*) The improvement of the breeds of cattle has for some time been under the consideration of the Government of these Provinces; and a note drawn up by the Director of Agriculture and Commerce on the subject led to a grant being sanctioned for the purchase of bulls for improving the breed of plough-cattle. Arrangements have also been made for the award of prizes for cattle at the principal fairs, with the special view of encouraging the breeding of the commoner classes of cattle. The Government also promised to allot Rs. 100 for every Rs. 300 subscribed in any district for cattle-prizes, on condition that the Director of Agriculture and Commerce and the Commissioner should always have timely notice of the date on which it was proposed to hold a cattle-fair or show in any district, and be constituted members of the managing committee. In this capacity the Director of Agriculture and Commerce will have the opportunity of assisting the committees of district shows, which are now becoming common in

many parts of the Provinces, with advice in matters of cattle-breeding, agricultural implements, improvement of staples, and other subjects concerning which his department has special knowledge.

(*g*) Proposals were submitted during the year under review for raising the occupiers' rates for flow-irrigation from the Upper Ganges and Eastern Jumna Canals. In favour of the proposed enhancement of rates it was urged (1) that the scale of rates in force was wrongly adjusted, the rates for flow-irrigation being too low as compared with those for lift-irrigation; (2) that the alteration would lead to economy in the use of canal-water; and (3) that the enhancement would increase the canal revenue, as cultivators obtain water by flow-irrigation at rates greatly below its real value. There was a considerable conflict of opinion on the part of the officers consulted as to the expediency of the change. After a careful consideration of the arguments adduced on either side, the Government came to the conclusion that the proposed enhancement of rates would have little, if any, effect in substituting lift for flow-irrigation, and that little, if any, economy in the use of canal-water would result from the change. On the third point, *viz.*, whether the change would cause an increase in the canal revenue, the information collected did not admit of a positive opinion being formed. The inquiries proved, however, that it would not be possible, without injustice and much difficulty in adjusting rents, to introduce the higher rates on the Jumna Canal, and on the Ganges Canal from Aligarh upwards, at this stage of the land-revenue settlements of the districts concerned. In districts below Aligarh, watered by the Upper Ganges Canal, the land-revenue settlements have much longer to run than in the upper districts; but, on the other hand, it is probable that in them irrigation was more developed when the settlements were made than in the districts above them, and that the State enjoys in them, in the shape of land-revenue, a fair portion of what it might have taken as water-rate. On the whole, while admitting that probably in many cases in the former districts the rents of occupancy-tenants have not been raised so high that there would be any injustice or hardship to the tenants from charging the higher rates, the Government held it to be established that there might be many other cases in which these results would

follow, and in which it would be necessary to interfere by legislation for their protection. It was decided, therefore, not to introduce the enhanced rates at present. Before the next revision of settlement is begun, it must be definitely settled what rates are to be charged for canal water, and whether rents are to be re-adjusted to the altered rates for water.

(*h*) With the object of encouraging the investment of capital by landholders in the permanent improvement of land, the following rule was issued by the Government, in order to give to the proprietors of land an assurance that future re-assessment shall not be suffered to interfere with their recovering their capital expenditure with reasonable interest :—"The Settlement Officer shall so assess lands irrigated from masonry wells or otherwise permanently improved by landlords at their own cost, that no extra demand shall be made from the landholder who has constructed the well or works until he shall have recovered his outlay thereon, including capital and reasonable interest." Steps were taken to make the rule as widely known as possible amongst the agricultural population.

(*i*) The preparation of revised rules under the Land Improvement Act had been for some time under consideration. Revenue officers unanimously declared it to be hopeless to expect that the provisions of the Act for obtaining advances would be made use of to any but a limited extent, so long as the complicated procedure laid down by the present rules remains in force. The conclusion arrived at was to the effect that Act XXVI. of 1871 and Act XXI. of 1876, as well as Act X. of 1879, should be repealed and a short Act passed, empowering the Local Government to make rules for advances connected with agriculture, and declaring that such advances shall be recoverable as if they were arrears of land-revenue. The method in which such advances should be given, whether for works of permanent improvement, or for the purchase of seed, bullocks, &c., would then be laid down in rules to be framed by the Local Government. A draft Act to effect this object was accordingly submitted for the consideration of the Government of India.

(*j*) The final settlement reports of the Bijnor, Azamgarh, Muttra, Agra, and Muzaffarnagar districts were reviewed by the

Government during the year, and the assessments were recommended for the confirmation of the Government of India for the usual term of thirty years in each case. In the permanently-settled districts the work of survey and of the preparation of accurate records continued uninterruptedly.

(*k*) In the North-Western Provinces there were 117 estates under the Court of Wards at the close of 1881, against 106 in 1880. In Oudh there were 61 estates managed by Deputy Commissioners on behalf of the Court of Wards or under the provisions of the Encumbered Estates Act, against 66 in the previous year.

Forests.

In the preceding year rules had been laid down for placing the forest officers in the Oudh Circle in closer communication with and subordination to the district officers. The reports received on the subject showed that the scheme had worked well; and after consulting the local authorities, it was decided to extend the rules to the whole of the Central Circle and to the Sahâranpur Division of the School Circle. Rules were also laid down for taking security from forest subordinates to the amount of not less than one-tenth of the estimated value of the public moneys or securities passing through their hands, discretion being left to Conservators to increase the amount if they think fit to do so.

License-tax.

The net license-tax collections during the year amounted to Rs. 11,63,000, or Rs. 20,000 less than the collections for 1880-81. The decrease extended to every division of the Provinces. The number of persons finally taxed was 49,129, the average sum payable being about Rs. 23·6 per head.

Excise.

The gross receipts under excise aggregated Rs. 39,63,321, an amount unprecedented in the annals of these Provinces, exceeding by Rs. 4,63,321 the sum assumed as normal income in the decentralisation measures of 1877. This result is due to increased prosperity on the part of the people and to improved administration on the part of the district officers, and it has been achieved without any apparent development of insobriety among the drinking class. Following the example of Bengal, the outstill distillery system was introduced

experimentally into the Gorakhpur, Basti, and Sháhjahánpur districts of these Provinces, and has so far proved a financial success. Proposals for its further extension were submitted by the excise authorities, who recommended that it should be put in force in tracts (1) which are already under the farming system, or (2) which border on native territory or the outstill districts of Bengal, or (3) in which the lowness of the revenue and the absence of effective supervision suggest the existence of illicit distillation. These proposals seemed moderate and well-considered, and the outstill system was extended to eleven districts and parts of districts during the year.

Stamps.

Local Governments were requested by the Government of India to fix the rates of discount for the sale of non-judicial stamps in consultation with each other, so as to guard against encouraging a traffic in stamps by import from a province where the rates are high to another where the rates are lower. The bulk of non-judicial stamps sold in these Provinces are impressed stamps, all other stamps together forming little more than one-seventh of the total. On impressed stamps the discount allowed in these Provinces and in the Punjáb is the same, *viz.*, 3 per cent. at places where stamps are sold by Government, and 5 per cent. at other places. In Bengal the discount is 3⅛ per cent. everywhere. On other stamps the rates of discount are somewhat higher in the North-Western Provinces and Oudh than in the Punjáb and in Bengal. It was explained to the Government of India that in Bengal and in the Punjáb discount is allowed on the sale of court-fees stamps; while in these Provinces no discount is allowed on such stamps, which are sold by official and salaried vendors only. Non-official vendors of stamps in these Provinces have therefore no source of income except the discount on general stamps. The profits made by them are already very low, and any reduction in those profits would probably cause them to abandon the business. The conclusion arrived at by the Government was, that if complete uniformity was desired, the proper solution of the difficulty would be to abolish discount on court-fees stamps everywhere, and then to assimilate the rates of discount on general stamps. The inquiries seemed to indicate that the difference between the rates of discount allowed in Bengal, the Punjáb, and these Provinces is not likely to affect the revenues of these

Provinces injuriously, and that there is no reason to believe that it affects the revenues of either Bengal or the Punjáb.

Registration.

One hundred and eighty-four thousand two hundred and seventy-seven documents were registered during the year, against 199,492 in the preceding period. There was a decrease over the united Provinces, both in registered sales and mortgages of immovable property, which points to diminishing pressure on the landed classes generally.

Agriculture and Commerce.

Experiments for reclaiming *reh*-infected land by cultivation, drainage, and flooding were continued; but the results were disappointing, though progress has been made in determining the trees and grasses that may advantageously be cultivated on *usár* ground. The question of utilising *reh* in glass manufacture is under consideration.

Four hundred and forty-two miles of roadway were planted with trees during 1881-82 in addition to the 1,340 miles previously laid out. Many of the large landholders have undertaken the care of avenues in the proximity of their villages or places of residence, and good results may be expected. The training of apprentices in the public gardens at Saháranpur and Lucknow was vigorously prosecuted during the year; and horticultural experiments were carried on with a fair amount of success at both these centres. The sericultural operations in the Dún are now entirely in the hands of Messrs. Lister and Co. The Gházipur tobacco farm has been leased for 50 years to a private firm.

Instructions were issued to the Department of Agriculture and Commerce for the preparation of statistics relating to the handicraft manufactures of the North-Western Provinces and Oudh, the handicrafts to be limited to those characteristic of each division or other portion of the Provinces, and the statistics to show (*inter alia*) the number of firms employing labour and of independent workmen, the average amount and value of outturn, and a general summary of the past and present history of the craft.

Traffic registration was maintained during the year under review under the three heads of *foreign*, *railway*, and *internal* (*road*), at a total cost of over Rs. 32,000. The returns are valuable, both to the Government and to the commercial and trading community.

Crime.

The police force entertained throughout the Provinces for the prevention and detection of crime numbered in all 124,849 (27 to every 100 square miles), and involved an expenditure of about 73½ lakhs of rupees. The number of reported cases of crime cognisable under the law by the police was 195,535, much the same (deducting cases of hurt) as in 1880. The year was a fairly prosperous one with the agricultural and other classes of the community, being much the same in this respect as its predecessor ; and the criminal results of the two years were very much alike. It is satisfactory to note a distinct falling off in the number of cases of professional crimes of poisoning and kidnapping, the leading gangs having been broken up by the police in previous years ; while few traces remain of any such organised system of dakaiti as formerly prevailed. The average daily jail population was 28,068, including convicts, persons under trial, and civil prisoners. The average cost of the prisoners was about Rs. 3 per head per month. Their health and conduct were on the whole satisfactory.

The total number of persons confined in the four lunatic asylums in 1881 was 1,154, 202 of whom were criminal lunatics.

Police.

The Oudh rules for the relaxation of the chaukídári cess and the payment of village watchmen were revised. The Oudh system differs from that in force in the North-Western Provinces, the Oudh chaukídár being paid by the landholder direct, a cess being imposed and collected by the district officer only in cases where there is distinct default on the landholder's part. The responsibility for the payment of the Oudh chaukídár by the talukdár on the one hand and the under-proprietor on the other, which had never been very clearly laid down, was defined ; and district officers were instructed to realise the cess in accordance with the instructions issued. The respective powers of the Commissioner and the Magistrate in regard to nominations to certain non-gazetted appointments in the district police force were more clearly defined.

Judicial.

(*a*) *Criminal.*—The proposal to restrict by legislation the possession and sale of poisonous drugs, with the view of suppressing the growing evil of

cattle-poisoning, having been found inexpedient, the Government endeavoured to effect its object by inducing all respectable landholders to withhold the skins of cattle dying under suspicious circumstances from the *chamárs*, who are generally credited with being the cattle-poisoners ; and by instructing Magistrates to visit with severe punishment all persons convicted of the offence of cattle-poisoning, and to endeavour to ascertain in each such case where and how the poison had been obtained.

(*b*) *Civil.*—It was decided, after considerable discussion, that the rules issued under section 320 of the Civil Procedure Code, regarding the sale of ancestral immovable property in execution of decrees, did not apply to the rights of tenants at fixed rates. An inquiry was instituted as to the effect which the extended application of these rules would have on the work and responsibility of district officers ; and it was ultimately decided to await the results of another year before coming to a decision on the question at issue.

A revised edition of the rules defining the qualifications of persons to be appointed to the office of Munsif in the North-Western Provinces (in Oudh all Munsifs are subject to the deparmental examinations) was prepared and issued, the object being to enlarge the area of selection, and thus allow of a wider discretion in the selection of nominees. In several districts the territorial jurisdiction of the subordinate courts was found to be unsuitable, and a scheme was accordingly drawn up, providing for the more equal apportionment of work and the more convenient location of the courts.

(*c*) *Miscellaneous.*—Instructions were issued in connection with a number of miscellaneous matters, such as the disposal of criminal and civil court records and the organisation of the revenue process-serving staff.

Litigation.

The litigation in which the Government was concerned during the year, in one or other of its three capacities as representing the State, Municipalities, or the Court of Wards, included 281 cases in the North-Western Provinces. Of these 222 were decreed, and the percentage of cases in which the Government was successful was 87. As before, the greater part of the litigation was connected with the management

of estates under the Court of Wards. This accounted for 194 cases, 98 of which appertained exclusively to the extensive Awa Estate. Only 19 cases of the 281 were instituted by and against Municipalities, and in every one of these the decision was in favour of the Government. The claims made by and against the Government respectively aggregated Rs. 1,41,773 and 7,40,705. In Oudh there were 44 cases in which the State was concerned, and here also the percentage of success was 87.

Medical and Sanitary.

At the close of 1881 there were 212 dispensaries open in the North-Western Provinces and Oudh, or one dispensary to every 208,052 persons. The indoor patients treated numbered 40,977, the outdoor, 1,550,830, being a large increase under both heads over the figures of the previous year. Surgical operations rose from 74,210 in 1880 to 77,826 in 1881, and the results were very satisfactory. The income of the year was Rs. 3,87,716 and the expenditure Rs. 3,67,518, the average cost per patient being 3 annas 7 pie against 3 annas 11 pie in 1880.

The registration of vital statistics, now universal throughout the Provinces, continued to be maintained as successfully as could be expected, and the returns point to a greater degree of accuracy than was ever before attained. The proposal to constitute each railway station a separate mortuary and birth circle, so as to secure correct returns both as to railway employés and passengers, was referred to the railway authorities. The returns of the year, the third in which registration of births extended to the entire population, show a per-milleage (in 1881) of 40·34 against 32·55 in the previous year, an increase ascribed to more efficient registration and to the calculation being based on the figures of the recent census, which showed the population to be 44,107,869. The death-rate was 31·79 per 1,000, as against an average on the figures of twelve years of 25·11, the greatest mortality occurring in the early cold-weather months following the rainy season. The total number of registered births during 1881 was 1,779,473, the total number of deaths was 1,402,473, the balance in favour of life thus being 377,000. In all 767,259 persons were vaccinated during the year. Of these 745,925 were primary cases, of which 684,026 were

reported successful. The returns of the department show that steady and rapid progress has been made since 1879, when the number of successful primary cases was under 200,000.

In connection with general and more especially with rural sanitation, such measures as the drainage of inhabited sites and the prevention (where possible) of people from sleeping on the ground, were suggested as likely to be productive of much good. Following the example set in Bánda, several district officers reported the introduction into the villages of their districts of simple reforms in the way of the cleanliness of wells, houses, and ponds, and the removal of manure and litter.

During the year 1881, 470 persons and 7,971 head of cattle were reported to have been killed by wild animals in the North-Western Provinces and Oudh, while 3,037 wild animals were destroyed, Rs. 8,435 being paid away in rewards. Human life suffered less in 1881 than in any one of the four preceding years, a result partly due to the vigour with which measures for killing animals were conducted. Wolves are of all animals the most destructive to human life, and arrangements are under consideration for a more organised system of hunting down these pests. The statistics regarding snakes were admittedly incomplete, but the figures submitted show 5,010 deaths from snake-bites. Rewards are not paid by the Government, for killing snakes, though in a few cases municipalities have endeavoured to encourage it by the offer of small rewards. Here also special measures are being tried, which will be duly treated of in next year's report.

Education.

(*a*) There were 6,521 educational institutions open in the North-Western Provinces and Oudh during the year 1881-82, with an attendance of 225,596 students, a small increase on the total of the previous year. The expenditure incurred for instruction (exclusive of direction and inspection) was over 16½ lakhs. There were 11 institutions affording university education (or its equivalent) at work during the year; 614 high and middle schools; and 24 schools for special or technical training. If the recorded results of the higher education were not quite up to the mark of the previous year, this was

counterbalanced by the marked success attending the great middle class anglo-vernacular examinations, in which the figures point to decided improvement. Of primary schools—Government, aided, and private—there were 5,562 for boys and 310 for girls, with an attendance of 205,164 and 8,784 respectively. The results of the upper and lower tests applied to primary pupils were on the whole satisfactory.

(*b*) The important subject of the education of European and Eurasian children in India has long been engaging the attention of the Government of India. A Resolution, announcing its intended policy, was published during the year, and a committee has been appointed to draft a code for regulating the manner of conducting European education in the Bengal Presidency, so far as it is dependent upon Government support. The recommendations of the committee have not yet been made known.

(*c*) At the instance of the Director of Public Instruction revised rules were published for the middle-class departmental examinations, embodying such alterations as the experience of the past five years had shown to be necessary or advisable. In connection with the general subject of the classification of instruction, in which no change was considered called for, the question of the transfer of pupils from the third to the second class in high schools was discussed. Eventually, the rules in force were modified so as to provide that, except where the special sanction of the Director of Public Instruction had been obtained beforehand, pupils of the third class must qualify by the anglo-vernacular test before being promoted to the second class.

(*d*) Among matters discussed but not decided during the year may be mentioned the institution of a central boarding-school for European and Eurasian children at Allahabad, and the proposed abolition of the Agra College. For the Allahabad project the Supreme Government promised a grant-in-aid of Rs. 1,50,000, and instructions were issued for the early commencement of the work. In regard to the Agra College no definite arrangement had been come to at the close of the year; but it will probably be maintained upon the proceeds of its endowments, supplemented by a grant-in-aid and by private subscriptions.

Municipal.

There were 109 municipalities in the North-Western Provinces and Oudh in the year 1881-82; with a total population of 3,099,868, and a total income of Rs. 35,33,621.

In the year preceding that of report, the Government of India took up the question of the alleged degeneration of octroi taxation into a transit duty; and the result of the inquiry showed that of the 109 municipalities in the North-Western Provinces and Oudh, 67 were apparently acting, in one way or another, in contravention of the canons that ought to regulate municipal taxation. The Local Government, in calling for detailed explanation, took the opportunity of inviting suggestions as to the best measures to be adopted for the protection of through trade. By the time the replies had been received, the results of the recent census were at the disposal of the Government; and the knowledge thus made available of the actual population greatly facilitated the decision as to the municipalities in which, and as the extent to which, through trade had been, and was being, taxed. Suitable orders were passed on each individual case; and the general principles laid down for guidance may be summarised as under:—

Freedom of through trade from duty:
Establishment (where desirable) of bonded warehouses:
Free grant of refunds of duty over a low minimum paid:
Uniformity of duties as far as possible:
Substitution of maundage for *ad valorem* rates on goods sold by weight.

In some cases, where either the local consumption represented only a small portion of the imports, or octroi was considered on other grounds unsuitable, it was abolished or modified, the substitute being either direct taxation or a duty on articles in which there was no through trade. Everywhere the principle was inculcated that only articles locally consumed should be taxed. The result of these measures will not be apparent till the reports on the working of the municipalities for the year 1882-83 have been received and analysed.

In regard to towns administered under Act XX. of 1856, it was ruled that the object of the law was primarily to provide for efficient

watch and ward; that conservancy, medical charity, education, and local improvements, however good in themselves, were under the Act secondary only; and that much taxation over and above the necessities of police would not be justified by the needs of the towns in respect of such matters. In accordance with this view it was laid down that the total amount assessed under Act XX. of 1856 should not ordinarily exceed double the estimated cost of watch and ward, and that the average rate of taxation should not be more than Re. 1-8-0 per assessed house; but Commissioners were authorised to sanction exceptional treatment in special cases. Revision of the taxation under Act XX. of 1856 was therefore carried out with the view of securing a more equable distribution of it, and a more general exemption of the poorer classes.

The question of the sale (in fee-simple) of nazúl land in the vicinity of municipalities and towns was taken up, and instructions were issued to the effect that where (as is usually the case) there is a likelihood of any large increase in value within a reasonable time, the land should be leased for a term of years instead of being sold outright.

Public Works.

(*a*) *Canals.*—The capital outlay on canals during the year was Rs. 16,24,784, and the total outlay to the end of the year Rs. 6,65,84,370. The canals open and in complete operation are the same as those enumerated in last year's report. One new project, the Betwa Canal, which is classed as a famine protective work, was commenced during the year. The Sardah Canal surveys were completed, and the project is under consideration. The new divisions of the Lower Ganges Canal are rapidly developing irrigation, and the area watered from the Agra Canal has been more steady than in previous years; but money in excess of the sanctioned estimate will have to be spent on the main canal and distributaries of the latter work before it can be properly remunerative. The works on the portion of the Lower Ganges Canal above its junction with the Upper Canal, and the junction works themselves, are complete or approaching completion. Good progress has been made on the Bhognipur Branch below the junction, but much work remains to be done on the lower portion of this branch, and in remodelling the Cawnpore and Etáwah branch distributaries.

The direct revenue on account of water-rates and miscellaneous receipts amounted to Rs. 47,92,620, and the revenue collected with the land-revenue was Rs. 9,49,681. The working expenses were Rs. 20,26,323, so that the net revenue was Rs. 37,15,928. The interest charges, which have been reduced from 4½ to 4 per cent. on capital, were Rs. 24,53,561, leaving a net profit to Government of Rs. 12,62,367. The area irrigated was 706,025 acres in the kharíf and 1,209,823 in the rabi harvest. The rabi area has never been exceeded; the kharíf area has been exceeded by that of 1878-79 alone, when the excessive drought led to a large area being irrigated with canal-water. The large rabi area of 1881 was due to the early cessation of the autumn, and the absence or deficiency of winter, rains. There was a remarkable increase in indigo irrigation in the kharíf, and in barley in the rabi area.

(*b*) *Railways.*—There were four provincial lines open for traffic in the North-Western Provinces and Oudh during the year 1881-82, *viz.*, the Muttra-Háthras, the Cawnpore-Farukhabad, the Gházipur-Dildarnagar, and the Muttra-Achneyra. The length of open lines was 144¾ miles in all. The financial results of the railways are not yet as satisfactory as might be desired or expected, but of their administrative value there can be no doubt. Survey operations were carried on in connection with the extension of the Cawnpore-Farukhabad Railway to Háthras and with the projected line from Bareilly to Pilibhít, to be extended eventually to Sitapur.

(*c*) *Ordinary Public Works.*—The total outlay of the year on roads and buildings (omitting Imperial works) was Rs. 44,79,000, of which Rs. 26,10,000 was Provincial, and Rs. 18,32,000 Local, the balance (Rs. 37,000) being contributed by other departments or from private sources. Rs. 14,66,846 was spent on original works, Rs. 23,22,759 on repairs, and Rs. 9,45,511 on the establishment engaged in directing, executing, or accounting for the expenditure on the works. Of the expenditure on original works, the sum of Rs. 7,30,238 was on civil buildings, Rs. 5,66,185 on communications, and Rs. 1,70,423 on miscellaneous public improvements. Of the repairs expenditure, Rs. 3,65,020 went to civil buildings, Rs. 19,36,955 to communications, and Rs. 20,784 to miscellaneous public improvements. From Provincial Funds there is a large annual expenditure on the gradual construction of Revenue, Jail,

and Police buildings, details of which for 1881-82 will be found in the body of the report; and in addition to this there was an expenditure of Rs. 90,118 on the restoration of buildings of archæological interest at Agra, Jaunpur, and elsewhere. Full particulars of the progress made in these are given in the body of the report. The construction of the Muir Central College proceeded steadily, and the building is now approaching completion. The total expenditure has been Rs. 5,78,619 against an estimate of Rs. 6,34,664.

Miscellaneous.

The difficult question of the division of the Covenanted Civil Service employed in the North-West Provinces into the executive and judicial branches, with the numerous issues appertaining thereto, was again considered, and the discussion was advanced several stages. But by the close of the year there still remained several points for decision, involving the interests of certain members of the service. The position of Covenanted Civilians in Oudh also received the attention of Government. The peculiar circumstances of Oudh, which is still to some extent a non-regulation province attached to the North-Western Provinces, with a staff composed of Covenanted, Uncovenanted, and Military Officers, complicated what might otherwise have been a simple question, and no final decision had been passed when the year 1881-82 closed.

The question of the privilege leave to be granted to judicial officers of the Civil Service was discussed; and the decision eventually arrived at was, that while in the North-Western Provinces (there is no recess in Oudh) the new rule should not have retrospective effect, for the future the title to and extent of privilege leave claimed by Civilian Judges should depend on whether the Dashera vacation had, or had not, been availed of by them.

The rules issued in 1877 regarding the examination of candidates for employment in the public service, which had been found on inquiry to have been in many cases disregarded, were promulgated afresh; and it was ruled that where, as may occasionally be the case, candidates holding the required certificates are not forthcoming, vacancies may be filled up with persons who have not qualified, provided that their confirmation in the appointments shall invariably be dependent on eventual qualification; and that if the qualification test be not successfully undergone within two years,

removal from the appointments shall follow. Further instructions were issued as to the employment of unpaid apprentices in public offices, and for the periodical transfer of subordinate employés in the Revenue, Magisterial, and Police Departments at the instance and under the orders of Commissioners of Divisions.

The procedure to be observed in all cases of the degradation or dismissal of public servants was prescribed, the essential points being that in all such cases a fair opportunity be given for the defence, and that a formal proceeding be recorded embodying the statements made by the persons dealt with and the reasons for the action taken against them.

Rules were prepared and promulgated in regard to the maintenance of official libraries throughout the Provinces. Many obsolete and useless works were removed from the libraries, and arrangements were made for securing that all necessary publications and books should find a place in these collections.

No less than 1,029 publications of various kinds were registered during the year 1881, a very large increase on the figures of the ten preceding years. Of these 598 were in the vernacular of the country, 205 in one or other of its classical languages, 142 were polyglot, and 84 English. Original new works numbered 509, translations 181, reprints of original works and of translations 272 and 67 respectively. The year was thus prolific in quantity, but none of the works call for special notice. The subjects most treated of were language, history, science, law, religion, and philosophy.

There was a considerable increase in the number of Volunteers throughout the provinces during the year. A new corps, consisting of companies at Bareilly, Shâhjahânpur, and Chandâusi, was organised under the title of the "Rohilkhand Volunteer Corps;" and the Agra Corps was increased by the addition of three new companies, which raised the strength from 429 on the 31st March, 1881, to 755 on the 31st March, 1882. Cadet companies composed of boys from the local schools were also formed at Naini Tal, Allahabad, and Cawnpore.

PART I.

CHAPTER I.

Physical Geography.

Sketch of the Meteorology of the year 1881 *in the North-Western Provinces, Oudh, and Eastern Rajputana.*

THE year 1881 was one of light rainfall over the greater part of Oudh, but, on the whole, it may be described as an average year, differing as widely from the dry year which immediately preceded it as from the very rainy year 1879. The average rainfall over the whole country from Ajmere to Patna and from Saugor to the Himalayas did not differ more than an inch from the mean for many years; but while in Rajputana and the Agra and Jhánsi Divisions the rain was excessive, it was much below the average in many districts of Oudh. In regard to temperature, wind movement, and other meteorological phenomena the year presented no very remarkable variations from the normal conditions of each season.

The tables illustrating the meteorology of the year are here arranged in the same order as in last year's report, *viz.* :—

Temperature.	Wind.
Pressure.	Humidity.

Rainfall.

TEMPERATURE.

In table 1. the mean temperature of each month is given in comparison with the average of many years' observations for the same month at the same place. On the mean of the year the temperature did not vary half a degree from the average at the great majority of the stations, the exceptions being Agra, Nowgong, Ránikhet, and Ajmere. At the first of these places the year was nearly a degree hotter than the average, and at the others it was cooler; the difference exceeding a degree at Nowgong, where the rain was very heavy and the whole rainy season very unusually cool.

TABLE I.—MEAN TEMPERATURE.

Month.	Chakráta.			Ránikhet.			Dehra.			Roorkee.			Meerut.			Bareilly.		
	Average, 13-14 years.	1881.	Variation in 1881.	Average, 11-12 years.	1881.	Variation in 1881.	Average, 18-20 years.	1881.	Variation in 1881.	Average, 19 years.	1881.	Variation in 1881.	Average, 20-22 years.	1881.	Variation in 1881.	Average, 15-16 years.	1881.	Variation in 1881.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
January ..	42·3	43·2	+0·9	46·3	45·4	—0·9	55·3	54·5	—0·8	55·7	55·0	—0·7	56·3	56·6	+0·3	56·7	56·9	+0·2
February ..	43·7	45·5	+1·8	48·7	49·7	+1·0	58·2	60·2	+2·0	60·3	62·4	+2·1	62·1	64·3	+2·2	61·8	64·7	+2·9
March ..	50·7	46·9	—3·8	56·4	51·0	—5·4	66·4	62·8	—3·6	68·7	66·1	—2·6	71·4	67·8	—3·6	71·8	68·6	—3·2
April ...	59·9	59·6	—0·3	65·5	64·4	—1·1	75·9	76·4	+0·5	80·7	80·9	+0·2	81·8	83·0	+1·2	82·5	84·1	+1·6
May ...	64·4	64·8	+0·4	68·0	67·4	—0·6	82·1	81·8	—0·3	87·3	86·7	—0·6	88·8	88·6	—0·2	87·8	88·8	+1·0
June ...	67·7	64·9	—2·8	71·1	68·4	—2·7	84·7	83·4	—1·3	90·4	88·8	—1·6	91·7	92·0	+0·3	89·3	86·0	—3·3
July ...	64·3	64·5	+0·2	67·9	68·2	+0·3	80·1	79·5	—0·6	84·9	85·3	+0·4	85·9	86·3	+0·4	84·1	85·6	+1·5
August ..	64·2	64·5	+0·3	67·3	66·7	—0·6	78·8	77·7	—1·1	83·4	82·6	—0·8	84·7	83·8	—0·9	83·2	82·7	—0·5
September...	63·1	64·2	+1·1	66·2	66·6	+0·4	77·6	78·1	+0·5	82·4	83·2	+0·8	83·4	85·0	+1·6	82·0	83·8	+1·8
October ..	57·8	58·8	+1·0	61·2	61·3	+0·1	70·6	70·7	+0·1	74·2	74·8	+0·6	75·7	77·1	+1·4	75·7	78·3	+2·6
November ..	51·8	50·6	—1·2	55·2	54·0	—1·2	62·2	61·4	—0·8	63·4	62·3	—1·1	65·5	63·1	—2·4	64·8	64·2	—0·6
December ..	46·2	50·3	+4·1	49·7	52·2	+2·5	56·1	56·8	+0·7	56·2	56·6	+0·4	57·4	57·1	—0·3	57·3	58·4	+1·1
Year ...	56·3	56·4	+0·1	60·3	59·6	—0·7	70·7	70·3	—0·4	73·9	73·7	—0·2	75·4	75·4	00	74·8	75·2	+0·4

TABLE I.—MEAN TEMPERATURE—(*continued*).

Month.	Agra.			Lucknow.			Gorakhpur.			Benares.			Allahabad.			Sutna.		
	Average, 24-26 years.	1881.	Variation in 1881.	Average, 17-19 years.	1881.	Variation in 1881.	Average, 17-20 years.	1881.	Variation in 1881.	Average, 20-23 years.	1881.	Variation in 1881.	Average, 14-16 years.	1881.	Variation in 1881.	Average, 5-6 years.	1881.	Variation in 1881.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
January ...	58·3	60·7	+2·4	59·8	59·3	−0·5	59·6	59·1	−0·5	59·7	59·0	−0·7	59·6	58·2	−1·4	60·9	60·9	0
February ...	65·2	70·5	+5·3	65·8	68·4	+2·6	65·1	66·4	+1·3	65·6	68·6	+3·0	65·2	68·6	+3·4	66·6	69·8	+3·2
March ...	75·2	72·6	−2·6	76·3	73·8	−2·5	75·0	72·8	−2·2	75·8	74·0	−1·8	77·2	74·0	−3·2	77·4	74·2	−3·2
April ...	86·5	88·9	+2·4	87·0	88·0	+1·0	85·0	87·0	+2·0	85·9	88·0	+2·1	86·5	88·4	+1·9	87·5	88·3	+0·8
May .	93·6	95·0	+1·4	91·3	90·3	−1·0	87·7	87·8	+0·1	91·3	91·5	+0·2	92·0	91·8	−0·2	91·2	91·8	+0·6
June ...	94·5	93·7	−0·8	92·0	89·6	−2·4	88·2	86·1	−2·1	90·8	89·2	−1·6	91·3	89·1	−2·2	91·0	88·5	−3·1
July ...	86·8	85·7	−1·1	86·2	85·8	−0·4	84·0	85·4	+1·4	85·0	84·8	−0·2	84·9	84·3	−0·6	82·7	82·3	−0·4
August ...	85·1	82·4	−2·7	85·1	83·8	−1·3	83·7	83·9	+0·2	83·8	82·4	−1·4	83·4	82·2	−1·2	81·7	80·4	−1·3
September,	83·7	84·5	+0·8	84·1	85·2	+1·1	83·2	84·5	+1·3	83·2	84·2	+1·0	82·6	83·1	+0·5	81·0	80·9	−0·1
October ...	78·5	81·6	+3·1	78·3	79·8	+1·5	78·3	78·3	0	77·8	78·2	+0·4	77·2	77·0	−0·2	77·1	77·1	0
November,	68·8	69·2	+0·4	68·1	67·4	−0·7	68·8	66·7	−2·1	67·4	67·1	−0·3	66·8	65·1	−1·7	68·4	67·2	−1·2
December ...	60·8	63·0	+2·2	59·9	60·8	+0·9	61·2	61·1	−0·1	60·0	60·4	+0·4	59·6	59·3	−0·3	60·8	61·1	+0·3
Year ...	78·1	79·0	+0·9	77·8	77·7	−0·1	76·6	76·6	0·0	77·2	77·3	+0·1	77·2	76·8	−0·4	77·2	76·8	−0·4

TABLE I.—MEAN TEMPERATURE—(*concluded*).

Month.	Nowgong.			Jhánsi.			Jeypore.			Sambhar.			Ajmere.		
	Average, 10-12 years.	1881.	Variation in 1881.	Average 16-18 years.	1881.	Variation in 1881.	Average, 12-13 years.	1881.	Variation in 1881.	Average, 10-12 years.	1881.	Variation in 1881.	Average, 15-16 years.	1881.	Variation in 1881.
	°	°	°	°	°	°	°	°	°	°	°	°	°	°	°
January	60·7	60 3	—0 4	62·0	64·7	+2·7	58·8	60.0	+1·2	55·5	58·1	+2·6	57·5	58·3	+0·8
February	69 2	69·4	+0·2	68·0	72·1	+4·1	62·8	68·2	+5·4	61·4	67·7	+6·3	62·9	67·8	+4·9
March	77·7	74 1	—3·6	78 0	75·1	—2·9	75·3	71·8	—3·5	74·6	71·7	—2·9	73·4	70·7	—2·7
April	87·0	88·8	+1·8	88·0	89 8	+1 8	85·0	84·1	—0 9	85·7	85·3	—0·4	83·4	82·7	—0·7
May	94·2	95·9	+1·7	94·5	96·6	+2·1	89·9	91·6	+1·7	91·1	92·7	+1·6	89·2	90·8	+1·6
June	93·7	90·2	—3·5	92·8	90 6	—2·2	91·1	91·2	+0·1	92·6	91·5	—1·1	88·7	88·2	—0·5
July	84·7	81·7	—3·0	83·9	82·3	—1·6	84·3	82·2	—2·1	85 7	83·6	—2·1	82·4	80·7	—1·7
August	83·7	80·9	—2·8	82·6	80·3	—2·3	81·7	80·4	—1·3	82·8	81·2	—1·6	80·6	77·6	—3·0
September	83·0	82·0	—1·0	82·2	82·7	+0·5	82 5	81·2	—1·3	83·1	81·0	—2·1	81·4	78·6	—2·8
October	78·8	78·0	—0·8	79·9	81·7	+1·8	76·8	78 8	+2·0	77·4	78·5	+1·1	77·2	76·1	—1·1
November	68·6	65·6	—3·0	71·8	69·7	—2·1	67·6	66·1	—1·5	65·2	64·3	—0·9	67·1	63·7	—3·4
December	61·7	60·6	—1·1	63·9	64·3	+0·4	60·2	62·1	+1·9	58·3	59·4	+1·1	60·1	60·9	+0·8
Year ...	78·6	77·3	—1·3	78·9	79·1	+0·2	76·3	76·4	+0·1	76·1	76·2	+0·1	75·3	74·7	—0·6

The temperature of January was generally a little below the average, except at Jhánsi, Agra, and the Rajputana stations. In February there was a general excess of temperature, greatest at these same stations, the relative distribution of the anomalies being very similar to that of January. In March, on the other hand, there was a very uniform defect of temperature, averaging about 3° over the whole country, but amounting to 5·4° at Ránikhet. This defect continued into April in Rajputana and at the hill stations, but over the rest of the country that month was rather hotter than usual. The temperature of May differed very little from the mean except at the western stations and Gorakhpur, where it was nearly 2° hotter. The rainy months, June, July, and August, were very general cooler than usual, while September was also cooler than usual in Rajputana and Bundelkhand, though slightly warmer elsewhere. In October there was a general excess of temperature, greatest at Agra, and the temperature of November was equally general in defect. In December the thermometer stood higher than usual at the hill stations and most places on the plains where the "Christmas rains" usually fall; but at the southern stations, where hardly any rain falls in December, there was little deviation from the mean. The lowest air temperature observed at any place on the plains was 34·1° on the 8th of January at Ajmere, and the highest was 116·5° on the 9th of May at Nowgong.

Pressure.

The mean pressure of the year was generally above the average, the only station where it was defective being Chakráta, which is over 7,000 feet above the sea. The slight defect at this station, combined with the excess elsewhere, indicates that the mean temperature of the air below the level of Chakráta was probably somewhat under the normal. In almost every month the abnormal excess of pressure was greatest along a line passing from Jhánsi somewhat to the east of Agra and through Bareilly to Ránikhet. In the rainy season a ridge of high pressure, running in this direction, frequently divided into two distinct areas the low-pressure region, which usually extends from the Panjab towards the north-western angle of the Bay of Bengal.

TABLE II.—MEAN ATMOSPHERIC PRESSURE.

Month.	Chakráta.			Ránikhet.			Dehra			Roorkee.			Meerut.		
	Average, 6-7 years.	1881.	Variation in 1881.	Average, 6-8 years.	1881.	Variation in 1881.	Average, 14 years.	1881.	Variation in 1881.	Average, 14 years.	1881.	Variation in 1881.	Average, 7 years.	1881.	Variation in 1881.
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
January	23·263	23 282	+·019	24·103	24·140	+·037	27 735	27 790	+·055	29·121	29·162	+·041	29·275	29·328	+·053
February	23 229	23 273	+·044	24 085	24·135	+·050	27·692	27·750	+·058	29·058	29·095	+·037	29 227	29·248	+·021
March	23 241	23 228	—·013	24 073	24 083	+·010	27 632	27 673	+·041	28·966	29·009	+·043	29·113	29·160	+·047
April	23·235	23 220	—·115	24·063	24 042	—·021	27 550	27 542	— 008	28·352	28 835	—·017	28 992	28 984	—·008
May	23 197	23·211	+·014	24·015	24 032	+ 017	27·464	27 487	+·023	28·744	28 754	+·010	28 889	28·891	+·002
June	23 130	23 115	—·015	23 933	23 937	+·004	27 345	27·366	+·021	28 614	28·629	+0 15	28·752	28·760	+·008
July	23 109	23 110	+·001	23 928	23 946	+·018	27 350	27·372	+·022	28 631	28 640	+·009	28·763	28·774	+·011
August	23 152	23 141	—·011	23 958	23 959	+·001	27 404	27 408	+·004	28 693	28·689	—·004	28·837	28 830	—·007
September	23·219	23·185	—·034	24 025	24 013	—·012	27·496	27·474	—·022	28 796	28 760	—·036	28·934	28·909	—·025
October	23·292	23 258	—·034	24·109	24 099	—·010	27·639	27 614	—·025	28·958	28 915	—·043	29 112	29 067	—·045
November	23 302	23·273	—·029	24·155	24·124	—·031	27·742	27 718	—·024	29·090	29·050	—·040	29·232	29·205	—·027
December	23·286	23·305	+·019	24·137	24·163	+·026	27·765	27 776	+·011	29·133	29·128	—·005	29·286	29·287	+·001
Year ...	23·221	23·217	—·004	24·049	24 056	+ 007	27·568	27 581	+·013	28.888	28·889	+·001	9·034	29·037	+·003

TABLE II.—MEAN ATMOSPHERIC PRESSURE—(*continued*).

Month.	Bareilly.			Agra.			Lucknow.			Gorakhpur.			Benares.		
	Average, 12-13 years.	1881.	Variation in 1881.	Average, 13-14 years.	1881.	Variation in 1881.	Average, 13-14 years.	1881.	Variation in 1881.	Average, 6-7 years.	1881.	Variation in 1881.	Average, 13-14 years.	1881.	Variation in 1881.
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
January	29·423	29·491	+ 068	29·465	29 534	+·069	29·677	29·714	+·037	29 781	29 823	+·042	29·773	29·819	+·046
February	29 369	29·411	+ 042	29 405	29 440	+·035	29·609	29·633	+·024	29 716	29·740	+·024	29·703	29 728	+·025
March...	29·268	29·327	+·059	29 304	29 356	+·052	29 467	29·538	+·071	29 592	29 632	+ 040	29 603	29·638	+·035
April	29·147	29·139	− 008	29 182	29 185	+ 003	29 377	29 359	−·018	29 466	29 441	−·025	29 474	29·452	−·022
May	29 035	29 066	+·031	29·064	29 074	+·010	29·275	29 272	−·003	29 385	29 405	+ 020	29 369	29 373	+·004
June	28·927	28 952	+·025	28 941	28 957	+·016	29 147	29 158	+·011	29 255	29 290	+·035	29·250	29·258	+·008
July	28 934	28 954	+ 020	28 947	28 959	+·012	29·157	29·154	−·003	29 260	29 281	+·021	29 255	29 258	+·003
August	29·002	29·000	—·002	29 014	29 012	—·002	29 223	29 205	−·018	29 328	29 327	−·001	29 324	29·299	−·025
September	29·098	29 073	—·025	29 116	29 121	+·005	29·316	29·301	−·015	29·422	29·411	−·011	29·416	29·402	−·014
October	29 262	29 222	—·040	29 287	29 278	—·009	29 491	29 459	−·032	29·599	29 560	− 039	29·589	29·558	−·031
November	29 396	29 375	—·021	29·431	29 415	—·016	29 634	29·596	−·038	29·723	29·696	−·027	29 727	29 696	−·031
December	29·442	29 447	+·005	29·481	29·502	+·021	29 694	29·678	− 016	29 784	29·777	−·007	29·787	29·784	−·003
Year ...	29 192	29·205	+·013	29·220	29 236	+·016	29·422	29·422	·000	29·526	29·532	+·006	29 522	29·522	·000

TABLE II.—MEAN ATMOSPHERIC PRESSURE—(*concluded*).

Month.	*Allahabad.*			*Sutna.*			*Nowgong.*			*Jhánsi.*			*Ajmere.*		
	Average, 7 years.	1881.	Variation in 1881.	Average, 5-6 years.	1881.	Variation in 1881.	Average, 4-5 years.	1881.	Variation in 1881.	Average, 12-14 years.	1881.	Variation in 1881.	Average, 13-14 years.	1881.	Variation in 1881.
	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
January	29·728	29·779	+·051	28·980	29 037	+·057	29·279	29 318	+·039	29 152	29·209	+·057	28·399	28·464	+·065
February	29·677	29·690	+·013	28·921	28 963	+·042	29·213	29 224	+·011	29·097	29·126	+·029	28 353	28·381	+·028
March	29·555	29·598	+·043	28 838	28 874	+·036	29·122	29 149	+ 027	29·003	29·055	+·052	28·271	28·302	+·031
April	29·425	29·417	—·008	28·720	28·720	0	28 994	29·000	+·006	28 888	28·920	+·032	28·178	28·191	+·013
May	29·326	29·326	0	28·608	28 609	+·001	28·880	28·880	0	28 788	28·796	+·008	28·079	28·085	+·006
June	29·199	29·219	+·020	28·495	28 509	+·014	28 778	28 783	+·005	28·661	28·687	+·026	27·972	27·985	+·013
July	29·213	29·224	+·011	28·501	28·512	+·011	28·795	28 778	—·017	28 662	28·681	+·019	27·950	27·939	—·011
August	29·278	29·263	—·015	28·553	28·550	—·003	28·839	28 830	—·009	28·733	28·721	—·012	28·020	28·000	—·020
September	29·372	29·368	—·004	28 644	28 662	+·018	28·932	28 936	+·004	28·818	28 834	+·016	28·113	28·102	—·011
October	29·552	29 519	—·033	28·814	28·801	—·013	29·093	29 082	—·011	28 993	28·981	—·012	28·279	28·271	—·008
November	29·677	29·653	—·024	28·920	28·909	—·011	29·214	29 193	—·021	29·123	29·094	—·029	28·390	28·365	—·025
December	29·742	29·743	+·001	28·974	28·986	+·012	29·266	29·282	+·016	29·165	29·182	+·017	28·416	28·436	+·020
Year ...	29·478	29·483	+·005	28·747	28·761	+·014	29·034	29 038	+·004	28·923	28·940	+·017	28 202	28·210	+·008

The variations of the pressure anomalies from month to month were not the exact counterparts of those of temperature, though at most stations there were pressure minima in April and October, the two months of greatest general temperature excess; while in Rajputana, where the cool weather of March extended into April, the April minimum of pressure was wanting. The opposition of sign which usually exists between the temperature and pressure variations was not generally observed during the rainy season, nor in November and December, the barometric pressure being affected by other causes than the variations of density in the strata of the atmosphere nearest to the ground. In November, for example, the pressure of that part of the atmosphere which lies above the level of the hill stations, and with which we are practically unacquainted, was less than usual, while in December it was considerably greater.

On the whole, there was a gradual fall of pressure during the year, when corrections are made for the annual variation, the fall amounting to about ·005 inch per month; but superimposed upon this were four wave-like oscillations, with periods averaging about three months each, and attaining their minima in February, April, August, and October.

Winds.

During the cold months of the year the variations of the prevailing wind directions from the average were not of any great importance, the most noteworthy being an unusually large proportion of easterly winds at Jhánsi in February and March. This was probably caused by the ridge of high pressure, which separate the cold-weather winds of the Peninsula from those of the Gangetic plain, lying somewhat to the north of its mean position. In May and June the winds over the northern plain were very generally more easterly than is as usual in those months, and the hot west winds of the afternoon did not reach far beyond the Ganges. This was probably a consequence of the high temperature of April and the beginning of May, which produced a rapid fall of the barometer and thus led to the early setting in of the rains.

TABLE III.—RESULTANT WIND DIRECTIONS.

Month.	*Chakráta.*			*Ránikhet.*			*Roorkee.*			*Meerut.*			*Bareilly.*		
	Average, 10-13 years.	1881.	Variation in 1881.	Average, 11-12 years.	1881.	Variation in 1881.	Average, 14-17 years.	1881.	Variation in 1881.	Average, 12-13 years.	1881.	Variation in 1881.	Average, 12-13 years.	1881.	Variation in 1881.
January ...	S 39° W	S 81° W	42°W	S 75° W	S 56° W	19° S	N 70° W	N 58° W	12° N	N 51° W	N 60° W	9°W	N 56° W	N 51° W	5° N
February...	S 9° E	S 48° W	57°W	S 53° W	S 52° W	1° S	N 52° W	N 81° W	29°W	N 52° W	N 77° W	25°W	N 62° W	N 39° W	23° N
March ...	S 23° W	N 14° W	143° N	S 52° W	S 36° W	16° S	N 70° W	N 62° W	8° N	N 50° W	N 60° W	10°W	N 53° W	N 70° W	17°W
April ...	S 59° W	S 76° W	17°W	S 63° W	S 64° W	1°W	N 74° W	N 59° W	15° N	N 52° W	N 55° W	3°W	N 56° W	N 55° W	1° N
May ...	S 59° W	S 85° W	26°W	S 62° W	S 47° W	15° S	S 14° W	S 15° E	29° E	N 30° W	S 43° E	167° E	S 88° W	S 72° E	160° E
June ...	S 67° W	N 89° W	24°W	S 64° W	S 46° W	18° S	S 10° E	S 32° E	22° E	N 24° W	N 64° E	88° E	S 88° E	S 66° E	22° S
July ...	S 65° W	N 88° W	27° N	S 64° W	S 57° E	121° E	S 37° E	S 40° E	3° E	N 88° E	S 49° E	43° S	S 61° E	S 40° E	21° S
August ...	S 68° W	S 81° W	13°W	S 66° W	S 40° W	20° S	S 27° E	S 48° E	21° E	N 87° E	S 43° E	50° S	S 55° E	S 41° E	14° S
September,	S 72° W	S 88° W	16°W	S 56° W	S 42° W	16° S	S 17° E	N 75° W	122°W	N 30° W	N 78° W	48°W	N 81° E	N 61° W	145°W
October ...	S 60° W	S 81° W	21°W	S 53° W	S 61° W	8°W	S 25° E	N 68° W	137°W	N 49° W	N 52° W	3°W	N 56° W	N 51° W	5° N
November,	S 46° W	S 62° W	16°W	S 51° W	S 57° W	6°W	S 68° W	S 66° W	2° S	N 52° W	N 43° W	9° N	N 56° W	N 53° W	3° N
December,	S 54° W	S 80° W	26°W	S 50° W	S 70° W	20°W	N 82° W	N 70° W	12° N	N 55° W	N 56° W	1°W	N 60° W	N 59° W	1° N

TABLE III.—RESULTANT WIND DIRECTIONS—(*continued*).

Month.	Agra.			Lucknow.			Gorakhpur.			Benares.			Allahabad.		
	Average, 13-14 years.	1881.	Variation in 1881.	Average, 5-8 years.	1881.	Variation in 1881.	Average, 12-13 years	1881.	Variation in 1881.	Average, 14-17 years.	1881.	Variation in 1881.	Average, 10-12 years.	1881.	Variation in 1881.
January ...	N 56° W	N 68° W	12°W	N 43° W	N 3° W	40° N	S 85° W	S 82° W	3° S	N 78° W	S 88° W	14°W	N 45° W	N 53° W	8°W
February ...	N 75° W	S 46° W	59° S	N 55° W	N 6° W	49° N	N 81° W	N 71° W	10° N	N 83° W	N 80° W	3°N	N 72° W	N 46° W	26°N
March ...	N 69° W	S 85° W	26°W	N 47° W	N 29° W	18° N	N 83° W	S 79° W	18°W	N 86° W	S 89° W	5°W	N 70° W	N 67° W	3°N
April ...	N 87° W	N 81° W	6° N	N 52° W	N 39° W	13° N	N 67° W	N 66° W	1° N	N 73° W	N 85° W	12°W	N 56° W	N 60° W	4°W
May ...	N 74° W	N 72° W	2° N	N 46° E	N 57° E	11° E	S 80° E	S 65° E	15° S	N 23° W	N 37° E	60°E	N 18° W	N 61° E	79°E
June ...	N 62° W	N 57° W	5° N	N 8° E	N 6° W	14°W	S 71° E	S 58° E	13° S	N 44° W	N 35° E	79°E	N 29° W	N 52° E	81°E
July ...	N 89° E	S 85° E	6° S	S 78° E	N 86° E	16° N	S 66° E	S 48° E	18° S	S 10° E	S 30° W	40°W	N 72° E	S 54° E	54°S
August ...	S 33° W	S 18° W	15° S	S 77° E	S 69° E	8° S	S 56° E	S 45° E	11° S	S 2° E	S 11° E	9°E	N 51° W	S 10° E	139°E
September...	N 34° W	S 89° W	57° S	N 22° W	N 87° W	65°W	S 64° E	N 77° W	167°W	N 85° E	S 87° W	178°W	N 10° E	S 56° W	134°W
October ...	N 75° W	N 82° W	7°W	N 15° W	N 59° W	44°W	N 85° W	N 73° W	8° N	N 70° W	N 85° W	15°W	N 60° W	S 86° W	34°S
November ...	N 73° W	N 68° W	5° N	N 39° W	N 70° W	31°W	N 80° W	N 83° W	3°W	N 82° W	S 84° W	14°S	N 75° W	N 40° E	115°E
December ...	N 61° W	N 49° W	12° N	N 32° W	S 87° W	61° S	N 86° W	N 86° W	0	N 85° W	S 86° W	9°S	N 64° W	N 3° E	67°E

TABLE III.—RESULTANT WIND DIRECTIONS—(*concluded*).

Month.	*Sutna.*			*Nowgong.*			*Jhánsi.*			*Jeypore.*			*Ajmere.*		
	Average, 5-6 years.	1881.	Variation in 1881.	Average, 4-5 years.	1881.	Variation in 1881.	Average, 12-15 years.	1881.	Variation in 1881.	Average, 6-7 years.	1881.	Variation in 1881.	Average, 12-15 years.	1881.	Variation in 1881.
January ..	N 9° W	N 9° W	0	N 6° W	N 3° E	9° E	N 30° E	N 50° E	20° E	S 77° E	N 55° E	48° N	N 41° E	S 71° E	60° S
February ..	N 37° W	N 68° W	31° W	N 44° W	N 50° W	6° W	N 6° E	N 87° E	81° E	S 79° W	S 70° W	9° S	S 79° W	S 46° W	33° S
March ..	N 53° W	N 53° W	0	N 70° W	N 79° W	9° W	N 21° W	N 88° E	109° E	S 88° W	S 81° W	7° S	S 75° W	S 53° W	22° S
April ...	N 57° W	N 60° W	3° W	N 80° W	N 84° W	4° W	S 80° W	S 46° W	34° S	S 89° W	N 85° W	6° N	S 76° W	S 87° W	11° W
May ..	N 52° W	N 54° W	2° W	N 67° W	N 64° W	3° N	S 86° W	N 86° W	8° N	N 84° W	N 50° W	34° N	S 60° W	S 82° W	22° W
June .	N 57° W	N 56° W	1° N	N 76° W	N 56° W	20° N	S 50° W	S 27° W	23° S	N 63° W	N 47° W	16° N	S 64° W	N 88° W	28° N
July ..	N 81° W	N 86° W	5° W	S 73° W	S 59° W	14° S	S 45° W	S 6° W	39° S	N 70° W	N 18° E	88° E	S 57° W	S 85° W	28° W
August ..	N 68° W	N 80° W	12° W	S 70° W	S 83° W	13° W	S 63° W	S 36° W	27° S	N 60° W	N 59° W	1° N	S 63° W	S 79° W	16° W
September...	N 63° W	N 76° W	13° W	N 75° W	S 89° W	16° S	N 51° W	S 50° W	79° S	N 64° W	N 51° W	13° N	S 79° W	S 87° W	8° W
October ..	N 37° W	N 47° W	10° W	N 42° W	N 58° W	16° W	N 31° W	S 56° W	93° S	N 64° W	N 41° W	23° N	N 74° W	N 72° W	2° N
November ...	N 32° W	N 55° W	23° W	N 6° W	N 71° W	65° W	N 15° E	N 24° E	9° E	S 78° W	N 2° E	104° E	N 42° E	N 63° E	21° E
December ..	N 27° W	N 52° W	25° W	N 25° W	N 19° W	6° N	N 35° E	N 3° W	38° W	S 32° E	N 31° E	117° E	N 71° E	N 81° E	10° E

In July the easterly winds penetrated as far west of the Jumna as Jeypore, and extended to a vertical thickness of 6,000 feet, as shown by the resultant direction at Ránikhet. Over the greater part of the plains, however, the directions were more southerly than usual, and at Benares south-westerly winds prevailed. There was a similar general prevalence of southerly components in August, except at Benares and Allahabad, where the resultant wind direction for the month is generally from the west or south, while last year it was from the south-east. The meeting place of the two branches of the monsoon current in August lay to the south of the Jumna, in Bundelkhand, and in this region several very heavy falls of rain occurred.

The prevalent direction in September was westerly or north-westerly over the whole of the Gangetic plain, as well as in the country beyond the Jumna, the easterly rain-bearing current having ceased early over almost the whole region. There was nothing remarkable about the variations during the last three months of the year, except that at Roorkee the south-east winds, which sometimes last until the beginning of November, were wanting, and that, in November and December, there was an excess of easterly winds at Jeypore and Allahabad.

Humidity.

The mean degree of humidity of the air was below the average at nearly every station, the exceptions being Ránikhet, Roorkee, Nowgong, and Ajmere, at all of which places the temperature was considerably below the mean, a decrease of temperature producing an increase of dampness or relative humidity when other things are constant.

TABLE IV.—RELATIVE HUMIDITY—(MEAN OF 10 A.M. AND 4 P.M. OBSERVATIONS)

Month.	Chakráta.			Ránikhet.			Dehra.			Roorkee.			Meerut.			Bareilly.			Agra.			Lucknow.		
	Average, 12-13 years.	1881.	Variation in 1881.	Average, 11 years.	1881.	Variation in 1881.	Average, 14 years.	1881.	Variation in 1881.	Average, 14 years.	1881.	Variation in 1881.	Average, 13 years.	1881.	Variation in 1881.	Average, 13 years.	1881.	Variation in 1881.	Average, 14 years.	1881.	Variation in 1881.	Average, 14 years.	1881.	Variation in 1881.
January ...	60	59	— 1	54	54	0	58	54	— 4	56	49	— 7	54	47	— 7	56	46	—10	48	35	—13	51	37	—14
February ...	62	61	— 1	54	53	— 1	57	48	— 9	53	44	— 9	49	47	— 2	51	44	— 7	43	33	—10	46	37	— 9
March ...	53	65	+12	47	63	+16	48	57	+ 9	40	55	+15	41	58	+17	42	52	+10	34	38	+ 4	35	40	+ 5
April ...	44	46	+ 2	38	44	+ 6	37	33	— 4	26	30	+ 4	32	34	+ 2	31	27	— 4	25	22	— 3	28	23	— 5
May ...	49	48	— 1	47	50	+ 3	39	35	— 4	30	31	+ 1	37	31	— 6	34	34	0	28	27	— 1	34	32	— 2
June ...	66	82	+16	60	77	+17	55	64	+ 9	44	54	+10	45	46	+ 1	50	64	+14	41	43	+ 2	42	53	+11
July ...	91	89	— 2	82	84	+ 2	80	79	— 1	70	70	0	69	67	— 2	74	73	— 1	67	72	+ 5	71	68	— 3
August ...	92	93	+ 1	83	89	+ 6	81	82	+ 1	71	76	+ 5	71	77	+ 6	75	82	+ 7	79	84	+ 5	73	77	+ 4
September ...	85	86	+ 1	76	79	+ 3	75	73	— 2	66	65	— 1	65	59	— 6	72	65	— 7	66	61	— 5	70	60	—10
October ...	60	53	— 7	54	57	+ 3	56	51	— 5	47	43	— 4	50	36	—14	55	42	—13	43	37	— 6	50	38	—12
November ...	50	43	— 7	49	50	+ 1	50	45	— 5	43	40	— 3	46	40	— 6	49	51	+ 2	37	29	— 8	41	31	—10
December ...	55	34	—21	50	43	— 7	55	44	—11	53	45	— 8	54	42	—12	55	48	— 7	46	35	—11	49	41	— 8
Year ...	64	63	— 1	58	62	+ 4	57	55	— 2	50	50	0	51	49	— 2	53	52	— 1	46	43	— 3	49	45	— 4

TABLE IV.—RELATIVE HUMIDITY—(MEAN OF 10 A.M. AND 4 P.M. OBSERVATIONS)—(*concluded*).

Month.	*Gorakhpur.*			*Benares.*			*Allahabad.*			*Sutna.*			*Nowgong.*			*Jhansi.*			*Jeypore.*			*Ajmere.*		
	Average, 13-14 years.	1881.	Variation in 1881.	Average, 13-14 years.	1881.	Variation in 1881.	Average, 12-13 years.	1881.	Variation in 1881.	Average, 5-6 years.	1881.	Variation in 1881.	Average, 4-5 years.	1881.	Variation in 1881.	Average, 14 years.	1881.	Variation in 1881.	Average, 6-7 years.	1881.	Variation in 1881.	Average, 14 year.	1881.	Variation in 1881.
January ...	56	47	— 9	49	34	—15	54	44	—10	37	22	—15	39	35	— 4	41	24	—17	35	32	— 3	42	37	— 5
February ...	49	41	— 8	40	30	—10	45	38	— 7	30	19	—11	36	35	— 1	35	33	— 2	46	42	— 4	39	34	— 5
March ...	42	42	0	29	33	+ 4	34	42	+ 8	19	25	+ 6	28	31	+ 3	26	31	+ 5	32	41	+ 9	34	36	+ 2
April ...	37	29	— 8	25	20	— 5	27	24	— 3	18	14	— 4	22	18	— 4	21	19	— 2	25	28	+ 3	30	32	+ 2
May ...	49	47	— 2	31	35	+ 4	31	33	+ 2	21	18	— 3	23	15	— 8	23	17	— 6	25	23	— 2	33	27	— 6
June ...	59	70	+11	49	55	+ 6	48	57	+ 9	37	46	+ 9	40	46	+ 6	40	45	+ 5	38	42	+ 4	44	47	+ 3
July ...	77	76	— 1	74	73	— 1	74	75	+ 1	70	72	+ 2	67	76	+ 9	68	74	+ 6	62	73	+11	65	76	+11
August ...	79	80	+ 1	76	82	+ 6	76	85	+ 9	72	80	+ 8	70	81	+11	70	82	+12	64	75	+11	68	84	+16
September ...	75	75	0	72	68	— 4	73	72	— 1	64	66	+ 2	64	65	+ 1	65	60	— 5	50	53	+ 3	59	67	+ 8
October ...	59	64	+ 5	52	46	— 6	54	52	— 2	42	34	— 8	43	36	— 7	39	31	— 8	39	29	—10	38	41	+ 3
November ...	51	49	— 2	45	36	— 9	47	41	— 6	29	21	— 8	35	29	— 6	31	24	— 7	33	24	— 9	34	29	— 5
December ...	56	54	— 2	49	43	— 6	52	44	— 8	30	24	— 6	43	36	— 7	38	31	— 7	38	36	— 2	42	40	— 2
Year ...	57	56	— 1	49	46	— 3	51	50	— 1	39	37	— 2	42	42	0	41	39	— 2	41	42	+ 1	44	46	+ 2

There was a general defect of humidity in January and February and during the last two months of the year, the cold weather rains in both seasons being late and scanty. In March and during the months of the rainy season, with the exception of September, there was in most places an excess ; while in April and May, owing to the high temperature, the air at most places was unusually dry. At the Bundelkhand stations some of the lowest humidities ever observed in this country were recorded in May. At Sutna the percentage of saturation at 4 P.M. fell on several days as low as 5, and on the 3rd it was only 2. At Nowgong the humidity fell to 4 per cent. on the 8th. At the Rajputana stations bordering on the desert the lowest humidity attained was 8 per cent.

The variations of the proportion of cloudy sky were generally similar to those of humidity in the air near the ground.

RAINFALL.

In the following table the rainfalls registered at numerous places have been combined, so as to give the average for each of the Revenue Commissionerships or other large areas of the same order. Over all the northern divisions, but especially in Gorakhpur, Basti, and the Fyzabad division, the rainfall of the year was much below the average; while in the south and west, with the exception of the Baghelkhand stations, there was a considerable excess, especially in the month of August. This distribution of the rain, and the early cessation of the easterly winds over the plain of the Ganges, point to the conclusion that the Bay of Bengal branch of the monsoon current was weaker than usual and brought less moisture when it did blow, while the westerly branch from the Arabian Sea brought more than its average burden of water vapour.

TABLE V.—RAINFALL.

Month.	Himalayan Districts (15 stations).			Meerut Division* (25 stations).			Rohilkhand Division (30 stations).			Sitapur Division (11 stations).		
	Average, 18 years.	1881.	Variation in 1881.	Average, 18 years.	1881.	Variation in 1881.	Average, 18 years.	1881.	Variation in 1881.	Average, 12-14 years.	1881.	Variation in 1881.
	"	"	"	"	"	"	"	"	"	"	"	"
January	1 73	0 38	—1·35	0·74	0 07	—0·67	0 89	0 07	—0·82	0 72	0·02	—0 70
February	2·64	1 09	—1 55	0·89	0 32	—0 57	1·04	0 50	—0 54	0·50	0·15	—0·35
March	2 20	4 84	+2 64	0·81	3 05	+2 24	0 78	4 01	+3 23	0 73	4 26	+3·53
April	1·09	0 68	—0 41	0 33	0 08	—0·25	0 32	0 02	—0 30	0 23	0 04	—0·19
May	2·28	1 83	—0 45	0 67	0 39	—0 28	0 86	0 76	—0 1[illegible]	0 80	0·83	+0 03
June	6 88	6 61	—0 27	2 49	2 39	—0 10	4 40	5 [illegible]	+1 08	4·69	6·48	+1·79
July	16 78	15 34	—1·44	9 17	9·82	+0 65	13 72	10·65	—3 07	11·72	8·27	—3 45
August	14 86	16·52	+1·66	7 81	10 61	+2·80	10 08	12·48	+2 40	9 35	10 63	+1·28
September	7·25	6 92	—0·33	4 54	0 59	—3 95	6 99	1·39	—5 60	6 96	1·53	—5·43
October	0 89	0 06	—0·83	0 55	0·03	—0 52	1 01	...	—1 01	1·53	0·03	—1·50
November	0 11	...	—0·11	0 02	...	—0·02	0 06	...	—0·06	0·03	...	—0 03
December	0 78	...	—0 78	0 53	...	—0 53	0 42	...	—0·42	0·46	...	—0·46
Year ...	57 49	54 27	—3 22	28·55	27·35	—1·20	40 57	35 36	—5·21	37·72	32·24	—5·48

* Excluding Dehra Dún.

TABLE V.—RAINFALL—(*continued*).

Month.	*Fyzabad Division* (10 *stations*).			*Benares Division* (30 *stations*).			*Allahabad Division* (43 *stations*).			*Agra Division* (34 *stations*).		
	Average, 12-14 years.	1881.	Variation in 1881.	Average, 18 years.	1881.	Variation in 1881.	Average, 18 years.	1881.	Variation in 1881.	Average, 18 years.	1881.	Variation in 1881.
	"	"	"	"	"	"	"	"	"	"	"	"
January	0·62	0·02	—0·60	0·54	0·03	—0·51	0·64	0·03	—0·61	0·44	0·01	—0·43
February	0·51	0·03	—0·48	0·60	0·05	—0·55	0·33	0·10	—0·23	0·28	0·19	—0·09
March	0·30	1·15	+0·85	0·29	0·67	+0·38	0·56	0·50	—0·06	0·42	1·39	+0·97
April	0·21	...	—0·21	0·29	0·05	—0·24	0·14	0·02	—0·12	0·15	0·47	+0·32
May	1·24	1·51	+0·27	0·99	1·76	+0·77	0·39	0·66	+0·27	0·48	0·36	—0·12
June	5·15	8·87	+3·72	4·92	7·14	+2·22	3·54	4·26	+0·72	2·26	3·61	+1·35
July	12·99	7·28	—5·71	12·89	9·09	—3·80	11·32	9·78	—1·54	9·79	14·16	+4·37
August	10·00	8·47	—1·53	10·28	13·61	+3·33	9·45	16·27	+6·82	8·55	16·30	+7·75
September	8·75	3·55	—5·20	7·85	4·62	—3·22	6·64	1·63	—5·01	4·97	0·52	—4·45
October	1·75	0·58	—1·17	2·21	4·24	+2·23	1·40	0·34	—1·06	0·89	0·01	—0·88
November	0·05	...	—0·05	0·08	...	—0·08	0·19	0·03	—0·16	0·01	...	—0·01
December	0·21	...	—0·21	0·15	...	—0·15	0·18	...	—0·18	0·38	...	—0·38
Year ...	41·78	31·46	—10·32	41·09	41·26	+0·17	34·78	33·62	—1·16	28·62	37·02	+8·40

TABLE V.—RAINFALL—(*concluded*).

Month.	*Lucknow Division* (11 *stations*).			*Rae Bareli Division* (11 *stations*).			*North East Rajputana*, (10 *stations*).			*Jhansi Division* (13 *stations*).			*Baghelkhand* (5 *stations*).		
	Average, 12-14 years.	1881.	Variation in 1881.	Average, 12-14 years.	1881.	Variation in 1881.	Average, 6-20 years.	1881.	Variation in 1881.	Average 18 years.	1881.	Variation in 1881.	Average, 3-19 years.	1881.	Variation in 1881.
January	0·59	0·03	—0·56	0·55	...	—0·55	0·14	...	—0·14	0·54	...	—0 54	0·57	...	—0·57
February ...	0·36	0·08	—0·28	0·30	0·09	—0·21	0·33	0·22	—0·11	0·26	0 12	—0·14	0 63	0·30	—0·33
March	0·28	0·46	+0·18	0·21	0·24	+0·03	0·19	0·80	+0·61	0·26	1·06	+0·80	0·28	1·26	+0·98
April	0·16	...	—0·16	0·15	...	—0·15	0·13	0·14	+0·01	0·08	...	—0·08	0·13	0·01	—0·12
May	0·55	0·44	—0·11	0·47	0·80	+0·33	0·78	0·17	—0·61	0·26	...	—0·26	0·32	0·28	—0·04
June	3·61	4·47	+0·86	3·71	3·53	—0·18	3·14	2·63	—0·51	3·20	4·19	+0·99	4·92	2 72	—2·20
July	10·27	11·67	+1·40	10·20	6·54	—3·66	9·22	12·80	+3·58	11·95	12·80	+0·85	16 35	14·19	—2·16
August	9·62	13·77	+4·15	9·92	14·77	+4·85	8·61	12·28	+3·67	10·38	21·37	+10·99	12 61	19·50	+6·89
September ...	6·69	1·86	—4·83	7·20	1·86	—5·34	4·24	1·05	—3·19	5·77	0·79	—4·98	5·95	2·01	—3·94
October	1·10	0·05	—1·05	1·80	0·47	—1·33	0·66	0·02	—0·64	0·83	0·18	—0·65	1·16	0·10	—1·06
November ...	0 01	...	—0·01	0·04	...	—0 04	0·13	·0	—0·13	0·05	...	—0·05	0·22	...	—0·22
December ...	0·35	...	—0·35	0·14	...	—0·14	0·31	0·10	—0·21	0·24	...	—0·24	0·31	...	—0·31
Year ...	33.59	32·83	—0 76	34·69	28·30	—6 39	27·88	30·21	+2·33	33·82	40·51	+6·69	43·45	40·37	—3·08

In January scarcely any rain fell, and in February there were only a few light and partial showers, chiefly between the 20th and 24th of the month. As a rule, the rainfall in March does not exceed half an inch in the plains, but in 1881 there was an unusually copious fall, averaging nearly four inches, in the Meerut, Rohilkhand, and Sitapur divisions, and five inches in the hills (where some of the precipitation took the form of snow), but less over the rest of the country. In April the quantity that fell was inconsiderable everywhere, except in the hills ; but in May there were heavier showers, chiefly between the 11th and 15th and between the 20th and 25th, the latter being widely distributed and accompanied by winds similar to those of the rainy season.

The rainy season proper set in with the month of June, there being generally distributed showers, heavy in some places, between the 1st and 12th, the 19th and 22nd, and the 26th and 29th. In the hills there was no break exceeding one or two days in duration from the beginning to the end of the month. In the Meerut Division, however, but little rain fell except in the first and last of the periods mentioned above. Rain fell at most places on more than half the days of July, and there was nowhere a break of more than a week or ten days, but the rainfall was generally light in the eastern districts. In August, also, there was nearly continuous rainy weather; but in September, while there were several rainy periods in the eastern districts, it was only in a few localities over the west and centre of the Provinces that any considerable quantity of rain fell after the first three days. Over the greater part of the country the rains ceased entirely about the middle of September ; but in some of the eastern districts showers continued until the beginning of October, and on the 6th of that month there was heavy rain all over the Benares Division, as well as in the adjacent districts of Oudh and Allahabad, and over the Bundelkhand region as far as Lalitpur. With the exception of a few light showers in and near the hills, and one accompanying a thunderstorm in the Allahabad district, no rain fell during the remainder of the year.

The heaviest falls in one day recorded during the year were 14·6″ at Bhogpur, in Dehra Dún, on the 1st September ; 14·5″ at Kunch, in Jalaun, on the 21st July, and 13·4″ at Narhat, in

Lalitpur, on the 11th August. There were numerous other heavy falls, especially in the Bundelkhand districts.

SUMMARY.

The most important meteorological features of the year were:—

1. A mean temperature differing little from the average, except at Nowgong, Ránikhet and Ajmere, where it was below the average, and at Agra, where it was nearly a degree in excess. The temperature everywhere high in April and October, and generally below the mean in March and in the rainy season.

2. A mean pressure slightly below the average at the highest station and generally above it elsewhere, the excess being greatest at Jhánsi, Agra, and Bareilly. The pressure unusually high during the first half of the year and low during the remainder, but superimposed upon the general decrease, four smaller oscillations having generally the usual relation to the variations of temperature.

3. An usually early setting in of the easterly winds from the Bay of Bengal, these winds, however, being generally weak and bringing comparatively little moisture, while over the greater part of the country they ceased to blow early in September.

4. A somewhat unusual degree of dryness in the air at most stations, specially in the cold-weather months and in April and May.

5. Little or no rain in January and February or in November and December, but unusually heavy rain in March. A very early commencement and an early cessation of the monsoon rains, which were generally light in the region of easterly winds, but in many places very heavy where westerly winds prevailed.

PART II.

CHAPTER I.

Physical and Political Geography.

PHYSICAL FEATURES OF THE COUNTRY, AREA, CLIMATE, AND CHIEF STAPLES.

POLITICAL.

HISTORICAL SUMMARY.

FORM OF ADMINISTRATION.

CHARACTER OF LAND TENURES. SYSTEM OF SURVEY AND SETTLEMENTS.

CIVIL DIVISIONS OF THE BRITISH TERRITORY.

For the above, see pages 39 to 58 of Administration Report for 1872-73.

CHANGES IN THE ADMINISTRATION.

See para. 1 of General Summary.

RELATIONS WITH TRIBUTARY STATES AND FRONTIER AFFAIRS.

There is nothing that deserves special notice under this head.

CHAPTER II.

Administration of the Land.

1.—Survey.

North-Western Provinces.

Survey operations were completed during the year in Gházipur and Mirzapur. In Ballia an area of 402 square miles was surveyed in the past field season.

2.—Settlement.

North-Western Provinces.

Assessment.—Pargana Tirohan, Karwi sub-division, was assessed during the year to a revenue of Rs. 95,202, rising by annual increments to Rs. 95,315. The revised demand is Rs. 3,255, or 3·3 per cent below the old jama of Rs. 98,570.

Mapping.—The reproduction of the village field maps, both of the cadastral and settlement surveys, has been satisfactory.

The maps of the cadastral survey, under reproduction in the Survey Office at Calcutta, comprise the districts of Bánda, Jaunpur, Gházipur and Ballia, Mirzapur and portion of the Taráí district. The district of Agra, containing 1,510 villages and 2,929 number of sheets, was completed during 1880-81. The district of Bánda, containing 1,264 villages and 3,317 number of sheets, was completed in the year under report.

The settlement survey maps are drawn on the yellow transfer or lithographic paper for reproduction in the Board's office, and printed (lithographed) in the Government Press. They comprise the districts of Sháhjahánpur, Budaun, Bareilly, and Pilibhít of the Rohilkhand Division, and Saháranpur, Muzaffarnagar, Meerut, and Bulandshahr of the Meerut Division. The districts of Sháhjahánpur, comprising 2,768, and Budaun, comprising

2,449 villages of the settlement surveys, have been completed. Azamgarh, containing 5,553 villages, was reported completed last year.

Records.—(*a*) *Temporarily-settled districts.*—In Bánda the records remaining incomplete were completed during the year, and all the settlement misls filed in the Collector's office. In the Karwi sub-division also record work is virtually at an end. The little work remaining in Chibu was completed and the records of the entire pargana have been filed. In Tirohan only 54 copies of the record-of-rights (jamabandi, wajibularz and khewat) remain to be faired, and 54 jamabandis and 108 khewats and wajibularzes to be copied.

(*b*) *Permanently-settled districts.*—Record work in Jaunpur has not progressed with that rapidity which was expected. This is due to the increasing value set upon tenant right and the pertinacity with which questions respecting it are fought out.

In Gházipur work is progressing steadily. The preparation of the papers in rough is well advanced, and fairing work has been put in hand in some parganas.

In the Mirzapur district rough work is in progress in the tahsíls of Chunar and Mirzapur. In the latter some of the records have also been faired out.

The settlement of Ballia is in its infancy, and the work is confined to the preparation of the records in rough.

Closing of settlement.—During the year under report settlement was closed by notification in parganas Darsenda and Chibu in the Karwi sub-division of the Bánda district.

Oudh.

Settlement operations throughout the province have closed. The revisions of the assessment which experience proved to be necessary in many districts have been completed and the final settlement reports have been reviewed.

3.—Waste Lands.

North-Western Provinces.

The only transaction was the sale of a building site, consisting of 10 acres, in the Kumaun district, for Rs. 63.

The table below shows the progress made in realising the purchase-money on account of waste lands sold up to the close of the year 1880-81:—

District.	Sale price.	Realised.	Balance.
	Rs.	Rs.	Rs.
Dehra Dún	78,948	77,778	1,170
Saháranpur	33,426	32,551	875
Kumaun	35,123	35,123	...
Garhwál	17,067	17,067	...
Bijnor	70,739	70,739	...
Bareilly	4,787	4,787	...
Jhánsi	100	100	...
Gorakhpur	49,992	49,992	...
Total ...	2,90,182	2,88,137	2,045

The sum entered against Saháranpur is on account of instalments not yet due. The Superintendent of Dehra Dún states that the balance of Rs. 1,170 in his district is due by a proprietor who, under the warrant, has the option of paying the balance of the purchase-money or interest thereon at the rate of 10 per cent. per annum. He purchased the grant in 1865 for Rs. 1,300, out of which Rs. 130 were paid at once: no further payment has been made since then.

Oudh.

Nil.

4.—Court of Wards.

North-Western Provinces.

During the year ending 30th September, 1881, seven estates, with an aggregate income of Rs. 2,39,315, were released from superintendence, and 18 estates, with an aggregate income of Rs. 1,29,593, were brought under the Court's charge. The number of estates under the Court at the close of the year was 117, as compared with 106 in 1879-80, and the total income of wards' estates in each division was in—

	Rs.		Rs.
Meerut	1,00,455	Jhánsi	21,471
Rohilkhand	4,65,968	Allahabad	11,07,926
Agra	9,74,170	Benares	6,38,163

The most important estate released was that of Mánda in the Allahabad district, which has an income of Rs. 2,20,077 per annum.

This estate furnishes a striking illustration of the benefits which ensue from the management of the Court. The family is one of the most ancient and respectable of the North-West nobility. They are Gaharwar Rájputs, popularly believed to be descended from Rája Jai Chandra of Kanauj, and the title of Rája appears to be of immemorial antiquity. The estate came under the management of the Court of Wards in 1864, and not only have 16½ lakhs of debts been since then paid off, but the estate has been made over to the proprietor with a surplus of Rs. 1,76,638. This is by no means a solitary instance; other similar cases might be noticed, and each succeeding year bears testimony to the highly successful financial results of the Court's operations.

Of the new estates brought under management, 11 were placed under the Court by order of the Civil Court; the proprietors of four were declared incompetent by Government; two estates were taken over on the recommendation of the local officers, and one at the instance of the Court of Wards of the Lower Provinces of Bengal. The most important of the new estates is the Sahanpur taluka in Bijnor, with an income of Rs. 71,200. It was taken over not only to save the family from impending ruin, but also to test the truth of the alleged overassessment of the forest portion, regarding which the Board are not as yet able to pronounce a positive opinion.

Of the 124 estates that were at one period or other of the year under the management of the Court, 13 estates belonged to disqualified females, 83 to minors, 9 to lunatics, 31 to persons declared disqualified by Government, one to a person otherwise disqualified, while one is managed by the Court of Wards as security for the repayment of a State loan. This makes up a total of 138 properties, but these really represent 124 estates. This apparent discrepancy is due to 14 properties appearing under more than one class.

The only districts in the provinces where there are no wards' estates are Dehra Dún and Garhwál. The district of Aligarh has been for some time a blank one, but the estate of Mahroni has now been put under the Court by order of the Civil Court. There were ten properties with incomes exceeding a lakh during the year under report, *viz.*, Sherkot, Pawáyan, Awa, Mánda, Partab Chand,

Faiyaz Ali's, Dúbé, Majhauli, Agori Barhar, and Kantit. On the other hand, excluding those where there is any uncertainty in the accounts, there were no fewer than 24 estates of which the total annual income is under one thousand rupees, and in some instances the income is a mere trifle. All of these are the property of females, minors, or lunatics, classes for whom it is difficult or impossible for the Court of Wards to decline to act. The question, in the case of these petty properties, of reducing and simplifying the forms of account, which are now precisely the same as those for the largest estates, will be taken up, and by the introduction of simpler forms, time and labour will thus be saved to those who are responsible for management. On behalf of those estates the Court held 2,528 revenue-paying entire villages, 1,644 shares of villages and 118 detached patches of land, and 189 revenue-free entire villages, 41 revenue-free shares and 46 revenue-free patches. The aggregate gross receipts from all sources of the estates managed by the Court were Rs. 35,17,606, and the net income was Rs. 10,87,523. The aggregate gross receipts in the preceding year of the estates held by the Court were Rs. 33,51,797, and the net income was Rs. 10,40,812, so that there has been a slight rise during the year under report. The yearly income of 24 estates was less than Rs. 1,000 each.

Excluding the value of landed property, stock and houses, the total assets and liabilities at the close of 1880-81 were as follows :—

Assets.	Amount.	Liabilities.	Amount.
	Rs.		Rs.
Government securities ...	9,43,665	Government loans ...	6,13,729
Debts secured	9,11,662	Court of Wards' loans,	2,64,922
Do. unsecured ...	29,508	Other debts ...	21,31,182
Takávi advances... ...	20,521		
Recoverable arrears of rental,	5,59,243		
Cash balance	5,55,974		
Total ...	30,20,573	Total ...	30,09,833

There was thus a net surplus of Rs. 10,740, as compared with a net deficit of Rs. 71,782 at the end of 1879-80. The point to be looked to, however, is not the financial position of the estates as a whole, but the condition of, and the progress made by, each individual estate under the Court. Sixty-four estates are in debt, and although, from the fact that to some of these estates large sums are due, all of them do not show a deficit, no less than 55 do so. The estates with a surplus of over a lakh are:—

	Rs.		Rs.
Sherkot	1,97,206	Partab Chand ...	3,75,920
Awa	7,27,855	Agori Barhar ...	1,74,094
Mánda	1,76,637	Kantit	4,72,104

and those with a deficit over a lakh are—

	Rs.		Rs.
Sahanpur	1,81,548	Majhauli	4,44,786
Sarai Bharat	1,15,050	Sarai Mir	1,16,241
Dúbé	3,19,035	Sunwani	5,67,017

In this last case nothing can be done towards paying off the debts until an appeal to the Privy Council now pending is decided.

As a rule, the chief business which the Court has at first to undertake is to free estates from debt, the great majority being more or less encumbered when taken over. When once this has been accomplished, balances to the credit of the estates rapidly accumulate. At the end of 1880-81, the amount invested in Government securities was Rs. 9,43,665, as against Rs. 8,47,642 in 1879-80, and the amount of the secured debts was Rs. 9,11,662, as against Rs. 6,28,316. The amount of the cash balances at the end of 1880-81 was Rs. 5,55,974, as against Rs. 9,25,665 in 1879. The amount in 1880-81 is large; but these balances are often not ascertained or available till the accounts for the year actually have been or are soon about to be closed, at which time it is frequently impossible promptly to effect suitable investments. Proper care is always taken, by forecasting the finances of the estates, to retain uninvested only such amounts as may be required for the working of the estates and the maintenance of the wards.

The demand for arrears of rent due to the various estates was Rs. 6,02,007, and the current demand was Rs. 30,70,941, making

a total of Rs. 36,72,948. Collections on account of arrears amounted to Rs. 1,15,266, or 19 per cent., and on account of the current demand to Rs. 28,06,198, or 91 per cent. The total balances are Rs. 7,51,483, of which Rs. 5,59,242 are recoverable, Rs. 37,842 doubtful, and Rs. 1,54,399 irrecoverable, the percentage of irrecoverable balance to the total demand being 4 per cent. The estates with a rental demand of over one lakh are :—

	Rs.		Rs.
Sherkot	1,36,727	Dúbé	2,54,196
Pawáyan	1,27,413	Majhauli	1,39,126
Awa	6,75,528	Agori Barhar ...	1,02,919
Mánda	2,20,869	Kantit	2,14,806
Partab Chand ...	1,42,605		

Out of the total balance of seven and-a-half lakhs remaining at the close of the year, more than five lakhs are attributable to the Awa and Dúbé estates alone. In Awa this was caused almost entirely by the unfavourable character of the seasons. The kharif was a total failure and the rabi was a bad one. Besides this, a considerable part of the estate has not yet recovered from the drought of the previous years. Under these circumstances, the manager wisely did not press the people for their rents. To an enormously wealthy estate like Awa, the fact of there being a high percentage of arrears in any one year is not of much importance, while the discontent and probable ruin of many of the tenantry which would result from pressing for immediate payment is a matter of the very greatest importance. It is not quite so clear from the accounts received that the unfavourable collections in the Dúbé estate are so entirely attributable to the bad seasons. But the fact that by far the greatest portion of arrears is classed as irrecoverable, which means that the tenants have not got the wherewithal to pay, certainly goes to show that the results are not merely due to laxity in collection. In 32 estates the current demand was realised in full, and in only 10 estates were the collections below 75 per cent. of the demand.

The total rental of the land was Rs. 28,21,624, the interest on cash investments Rs. 25,569, and the miscellaneous income (including interest on loans) Rs. 4,60,961, making a grand total of

Rs. 33,08,154. Against this the following payments must be set :—

	Rs.
Government revenue	14,01,222
Cesses	1,71,778
Patwáris' rate	77,614
Owners' rate	2,542
Occupiers' rate	86,069
Cost of management	1,68,090
Miscellaneous charges, including law expenses, ordinary repairs, and interest on debts and loans	3,13,487
Total ...	22,20,802

An actual deficit to the amount of Rs. 171 occurred on one estate only—namely, Kukargaon in Jhánsi.

The percentage of cost of management to the total receipts was 5, the corresponding figure for the previous year having been 4·63.

The charge for management that has hitherto been made by the Court is very low in comparison with the enormous benefits which have undoubtedly been derived by estates from the Court's management. And the Board have been requested to draw up a comprehensive scheme for the appointment of non-official managers and for their superintendence, and also to consider whether any further charge can fairly be made upon estates for the services of the public establishments now employed, to a greater or less extent, in connection with the estates under the Court.

Including the cash balance of Rs. 8,96,232, the sum available for the maintenance and education of the wards, and for improvements, investments, &c., was Rs. 19,83,755. The expenditure under these heads was as follows :—

	Rs.
Personal expenses—	
(a) Ordinary	2,89,498
(b) Extraordinary	91,577
Educational charges	10,571
Works of improvement...	91,772
Takávi advances	9,760
Repayment of principal of loans made by Court of Wards or Government	76,929
Repayment of principal of other debts	4,66,017
Purchase of Government securities	1,30,986
Purchase of landed property and houses	1,66,648
Loans granted on mortgage or otherwise	3,03,303
Total ...	16,37,061

The division of personal expenses into ordinary and extraordinary is at present a somewhat arbitrary one, and the classification of items is not always uniform; but, in future, the column for extraordinary expenses will be strictly restricted to expenditure on marriages and religious ceremonies, and on other items of an exceptional and occasional kind. It is and has ever been the policy of the Court of Wards to discourage lavish and extravagant personal expenditure; and, as far as it can be done without unduly opposing the wishes and offending the sensibilities of wards and their relatives, such expenditure is always regulated with due regard to its practical utility and the position and means of the wards.

A sum of Rs. 91,771 was expended during the year on improvements in 29 estates, as compared with Rs. 67,257 spent in 1879-80. The expenditure appears small when compared with the funds available in a number of estates. It must in a number of cases be more advantageous to the wards that surplus funds should be invested in permanent improvements than in Government securities and loans to other estates. No hard-and-fast rules can be laid down on the subject, but while on the one hand improvement operations should be introduced where possible, on the other hand only such experiments should be undertaken as are likely to yield definite results that will benefit the landlord and tenants of the estates concerned.

Only Rs. 9,760 were advanced as takávi in 22 estates. This amount is disproportionate to the extent and condition of the estates which are under its charge; but improvement in this as in other respects will no doubt follow from the new scheme of management.

Rs. 3,728 were advanced by the agricultural banks started in the Kantit and Agori Barhar estates, as compared with Rs. 1,549 in 1879-80. These results are not very encouraging; but the experiment has hardly had a fair trial hitherto, and the estates concerned have not been losers by their advances.

The total debts on the 50 estates, when charge was assumed, were Rs. 66,98,836, and debts amounting to Rs. 21,51,803 were subsequently incurred. Rs. 49,61,111 have been paid off, exclusive of interest; and the amount still due at the close of the

year was Rs. 38,89,528. The most important Government loan to these estates is that of Rs. 7,55,528 granted in 1879 to the Majhauli estate in Gorakhpur, of which about three lakhs have now been paid off. Twenty-three loans, amounting to Rs. 3,83,111, have been granted by the Court of Wards to encumbered estates under their charge from estates possessed of surplus funds. Of the above amount, Rs. 1,35,400 in 10 loans were lent in the year of report. The repayment of instalments and interest was, on the whole, satisfactory, though, on account of adverse seasons, one or two estates were unable to meet in full the demands against them.

The investments of the year amounted to Rs. 6,00,937, an unusually large amount, due to the rapid accumulation of surplus funds in the wealthy estates of Sherkot, Awa, Mánda, Partab Chand, and Kantit. Rs. 1,30,986 were invested in Government securities, Rs. 1,66,648 in the purchase of land, and Rs. 3,03,303 in loans to other estates. The rate of interest now charged on loans made by the Court from surplus funds is 7 per cent., as native bankers are prepared to lend to estates under the Court at this rate; but there can be no doubt that there is practically no risk in lending to a solvent estate under the Court; and 6¼ per cent., the rate at which public money is advanced on landed security, is under the circumstances a fair rate to charge. It is considerably higher than could be obtained by investing in Government paper, while the security afforded by the management of the Court is unimpeachable. This rate will therefore be charged when the investment from proximity and other reasons is advantageous to the lending estate, and where the estate has no other more profitable means of investing its savings than in Government paper. It will, however, be always borne in mind that the estate on which surplus capital has accrued has the first claim on its investment.

Four hundred and fifty-two notices of ejectment were issued under section 36, Act XVIII. of 1873, in respect of an area of 2,414 acres. Out of these 52 notices, referring to an area of 313 acres, were successfully contested; and 82, referring to an area of 528 acres, were unsuccessfully contested. In 145 cases the tenants relinquished land, the area of which was 717 acres; and in 173 cases the tenants, holding an area of 886 acres, were

permitted to remain in possession at enhanced rates. The number of applications for enhancement of rent filed and decreed was 57. The area on which the enhancements were sought was 274 acres. The rent previously paid by the tenants was Rs. 773, and the rent decreed was Rs. 1,114. The number of applications both for ejectment and for enhancement of rent was very small in comparison with the vast number of holdings under the Court. The principles that should regulate the action of the Court in regard to the growth of tenants' occupancy rights have lately been laid down, and the attitude of the Court towards its tenants generally is characterised by moderation and forbearance, and the power of ejectment and of enhancing rent is only resorted to in cases where it is thoroughly justifiable.

The rules based on sections 321-25 of the Code of Civil Procedure, regarding sales of ancestral landed property, were in force for ten months of the year only.

In 1879-80, 15,431 decrees were shown as having been transferred by Civil Courts to District Officers for execution. These figures, however, included decrees affecting land other than ancestral. But from a reference to the same figures for the year under report, it will be observed that only 4,265 decrees affecting non-ancestral land were transferred during 1880-81, so that 7,316 decrees in all were sent to District Officers, against 15,431 in 1879-80.

Though there are no figures available to show the number of cases transferred in 1879-80, which related to ancestral property, it may fairly be assumed, from the decrease in the total number, that there has been a considerable diminution in the number of applications relating to ancestral property. There is good reason to suppose that this decrease is, at any rate partially, due to difficulties thrown in the way of such executions by the new rules; but it is quite possible that there has been a considerable diminution, during the past year, in applications of all kinds for the execution of civil decrees.

Of the 3,051 decrees nearly one-third appertains to the Meerut Division, and in not a single case was the local officer's intervention successful. In Rohilkhand, ten estates were either farmed or

leased, two taken under Collector's management, and in one instance a part of the property had to be sold. In the remaining 661 cases the entire property was either sold or the cases are pending disposal.

Of the 668 cases in Agra, 114 were taken back by the Civil Courts. Of the remainder, the Collectors successfully intervened in 15, by farming or leasing six estates, and in nine cases by selling only a part of the lands. In 186 cases sale of the entire property was inevitable, in 52 compromises were effected, and 301 cases were undisposed of at the end of the year.

The transfers in Benares were 466; of these, four properties affected were either farmed or leased, and three estates were taken under management. There were only 24 cases pending in the division at the close of 1880-81, so that in 435 cases the entire land had to be sold.

Fourteen cases only in Jhánsi were made over to the revenue officers. Seven estates out of the 14 were taken under Government management and one farmed: one claim was compromised, and only in five cases was sale necessary. The sale of land in satisfaction of debts was formerly not allowed, and has always been very rare in Jhánsi.

In the 52 cases in which alone out of 3,051 transfers the Collectors were able to intervene with more or loss success, 10 estates were leased, 2 mortgaged, 14 farmed, 14 were held under direct management, and in 12 cases a part of the estate was sold.

The results are *primâ facie* not encouraging, but there is no reason to believe that Collectors generally could have done more in this direction than they have done. The fact is that the estates are, as a rule, hopelessly embarrassed before the Collector's action can commence, and the cases are rare in which he can then avert sale by the measures which the law allows him to adopt. The general view taken by Collectors of the conduct of the average judgment-creditor is that he is by no means so grasping and avaricious a person as he was formerly depicted. Some Collectors freely confess that they have had to alter their opinion of him in consequence of what they have seen in the cases transferred for execution to them. They find that, as a rule, applications for sale

are only made when all other methods of realising decree-money have hopelessly failed, or where a recusant debtor is determined not to pay up till the very moment of sale.

No statistics for Kumaun were furnished. In the hills it is difficult often to interfere in such cases, because the usual holding is generally from one to two acres, and it is impossible to expect profits from so small an area as will give any hope of ever satisfying a debt of even Rs. 100; but the land sold seldom passes into the hands of a bania, and land is never allowed to be sold if the owner of it can give any reasonable hope of otherwise satisfying the claims against him. The circumstances of this division are very different from those of the other divisions, and it is impossible to expect these rules to be of much service in it. It is sufficient if their spirit is adhered to, and this is the case.

Oudh.

The management of the Deputy Commissioner extended over 61 estates on behalf of the Court of Wards or under the provisions of the Encumbered Estates Act. The year (which throughout this chapter must be understood to be the revenue year ending on 30th September, 1881) opened with 55 estates on the roll; six estates were brought into the Court of Wards during the year, three were released, of which two were wards' and one encumbered. There remained now 58 estates.

The gross rental of the 61 estates was Rs. 18,45,504. The 55 estates under management at the beginning of the year had a rental of Rs. 16,59,186; that of the six estates added during the year Rs. 1,86,318; that of the three estates released Rs. 3,07,056. The 58 estates remaining at the beginning of the current year have a rental of Rs. 15,38,448.

The collections amounted to Rs. 17,03,899, or 92½ per cent. of the year's demand.

The demands from sources other than land rents was Rs. 4,14,502, of which Rs. 3,48,738, or 81 per cent., was realised. This is a great improvement on the previous year. There is reason to hope that as the areas under management have now come within smaller proportions, these details will receive greater attention.

The current land revenue of the estates amounted to Rs. 9,00,092. A balance remained unpaid of Rs. 44,268. The arrear balance of land revenue was reduced from Rs. 13,250 to Rs. 4,350.

The cost of management was under 4 per cent.

The income from all sources for the year amounted to Rs. 20,52,648 ; it was expended as follows :—

Heads of expenditure.	Amount expended.	Percentage of total income of the year.
	Rs.	Rs.
Overdue Government revenue, including cesses and rates	9,135	0·44
Current ditto ditto ditto ...	9,10,662	44·36
Management	80,968	3·94
Maintenance	1,77,929	8·66
Extraordinary allowances to proprietors ...	42,972	2·14
Law expenses	34,580	1·68
Subscriptions	9,347	0·45
Schooling expenses of minors	3,900	0·18
Improvements	87,009	4·23
Miscellaneous (including pay of village police and accountants)	1,92,700	9·38
Debts	4,68,835	22·84
Total ...	20,18,037	98·3
Balance ...	34,601	1·7
Total income of the year ...	20,52,648	100·

Of the 61 estates under management, 26 were encumbered estates held under the provisions of Act XXIV. of 1870. The debts of these when first brought under State control amounted to Rs. 18,24,577. This has been reduced by the commencement of the year 1880-81 to Rs. 11,01,915. The balance still due at the end of the year was Rs. 10,29,557.

Of the 35 estates in the Court of Wards, 21 were in debt, 14 out of debt. The debts of the 21 were originally Rs. 19,61,063. They had been reduced by the beginning of the year to Rs. 14,03,374 ; during the year they were still further reduced to Rs. 11,31,352.

Of the total debts of the estates, Rs. 15,30,891 are due to Government, Rs. 6,30,018 to private creditors.

5.—State Properties.

(a.)—*North-Western Provinces.*

Including three properties which were inadvertently omitted by Collectors from their statements for 1879-80, the year under report began with 110 Government maháls or shares of maháls, paying land-revenue as shown below. During the year two more properties came into the possession of the State, and four were disposed of, so that at the close of the year there were 108 such properties :—

District.	*At commencement of the year.*		*Acquired during the year.*		*Total.*		*Disposed of during the year.*		*Remaining.*	
	Number.	Revenue.	Number.	Revenue.	Number.	Revenue.	Number.	Revenue.	Number.	Revenue.
		Rs.		Rs.		Rs.		Rs.		Rs.
Muzaffarnagar	4	37	...	...	4	37	1	1	3	36
Meerut ...	2	600	...	...	2	600	...	..	2	600
Aligarh ...	2	248	...	..	2	248	...	...	2	248
Bijnor ...	7	2,174	...	...	7	2,174	...	...	7	2,174
Moradabad ...	12	3,525	...	...	2	3,525	...	...	12	3,525
Pilibhít ...	3	560	...	...	3	560	...	...	3	560
Agra ...	1	770	..	...	1	770	...	...	1	770
Farukhabad ...	1	81	...	...	1	81	...	...	1	81
Mainpuri ...	2	21	...	...	2	21	2	21	...	...
Jalaun ...	...	...	2	340	2	340	...	...	2	340
Lalitpur ...	10	707	...	...	10	707	...	..	10	707
Fatehpur ...	1	180	...	...	1	180	...	..	1	180
Bánda ...	12	6,468	...	...	12	6,468	1	400	11	6,068
Allahabad ...	51	19,834	...	...	51	19,834	...	...	51	19,834
Hamírpur ...	2	770	..	...	2	770	...	..	2	770
Total ...	110	35,975	2	340	112	36,315	4	422	108	35,893

The two maháls acquired during the year are in the Jalaun district. They were sold by auction for arrears of revenue, and were bought in by Government.

The following alienations were effected during the year :—

Muzaffarnagar.—A patch of 1 rood and 20 poles, in which the mortgagee's rights had been confiscated on account of his rebellion, was released on the mortgagor paying the mortgage-money, Rs. 35.

Mainpuri.—Two properties, which were confiscated for the rebellion, &c., of the owners, were sold by auction for Rs. 438.

Bánda.—Mauza Lodhaura was purchased by Government in 1849 at a sale for arrears of revenue, and had since then been held direct or farmed. It is a pattidári village, and the revenue having admittedly been a crushing one, advantage was taken of the present settlement to restore it to the old proprietors.

In addition to the above, the site (area 20 poles) of the house of Phundun Lal, late Treasury Accountant in the Bareilly Collectorate, whose whole property was confiscated by Government, was sold for Rs. 67.

(*b.*)—*Oudh.*

At the close of last year there were 64 so-called estates on the roll as belonging to Government. One of them has been broken up into two: fourteen have been disposed of: two small plots in Fyzabad and Rae Bareli, with an area respectively of 53 and 10 acres, were sold: in Bahraich 12 villages on the Nipál frontier, too far off for effective management by the Deputy Commissioner, were sold to Sirdar Hira Singh, an energetic and excellent landlord, under whose management the villages may be expected greatly to improve; the price realised was Rs. 15,750. There now remain 51 estates on the register with a total area of 19,489 acres.

The current demand for rents was Rs. 28,825; and, except in four small villages in the Rae Bareli district, was collected almost in full. Including collections of arrears, the receipts of the year amounted to Rs. 29,395. About half of these properties are managed through lessees: the charges for management are thus low.

CHAPTER III.

Protection.

1.—Legislating Authority.

See page 68 of Administration Report for 1872-73.

2.—Course of Legislation.

See General Summary.

3.—Police.

The strength of the police force in the North-Western Provinces and Oudh was for the year under report 124,849 men. This force was made up as follows :—

At head-quarters			4
District Superintendents of Police and Assistant District Superintentents of Police			55
Subordinate officers			4,238
Mounted constables			638
Foot constables			17,269
Town police ...	Officers	841	10,926
	Men	10,085	
Village watchmen			89,510
Road watchmen			2,209
		Total ...	124,849

The total cost of this force is for the regular constabulary Rs. 43,46,619, and for the chaukidárs Rs. 29,97,263, making a total of Rs. 73,43,882. In these provinces there are 27 policemen to 100 square miles, while in Bengal there are 14, and in the Punjáb 19. But the population to be controlled by the force is apparently denser in the North-Western Provinces and Oudh than in either of the other provinces ; and the number of police to every 10,000 persons in the former, exclusive of Kumaun (where the village headmen and patwáris do police duties) and the three railways on which special Government police are employed, is 6, against 11 in the Punjáb and 4 in Bengal. Further, judged by the number of crimes

reported by the police, the duties which devolve on the force in these provinces are twice as onerous as in Bengal, and three times heavier than in the Punjáb; and whether crime is or is not better reported in these provinces than in the others, this comparison must be remembered in judging the relative success of the police of the three provinces in dealing with reported crime.

The year was, taking the province as a whole, a fairly prosperous one; and as far as inducement to crime, dependent on the general condition of the population, is concerned, it may be fairly compared with 1880. The rainfall, however, was unevenly distributed, and the harvest losses in particular districts were probably sufficient to affect the prevalence of theft. There was an increase of 5,717 in reported cases of cognisable crime, the total number of reported cases in 1881 being 195,535, as against 189,818 cases in 1880; but if hurt cases be deducted, the total figures for the two years show very slight variation. An increase is shown of 111 cases of rioting, but this is possibly nominal, because every riot now counts for two cases, each faction in it being under a recent ruling of the High Court tried separately. Serious offences against the person increased from 5,246 cases in 1880 to 5,847 in 1881, the increase, which amounts to over ten per cent. on the figures of 1880, being common to almost all forms of this crime except the professional crimes of poisoning and kidnapping, in which there was a decrease. Serious offences against property show much the same figures in the two years, being 50,845 in 1881, as against 50,158 in 1880; nor is there much variation in the numbers under the various sub-heads of this class of offences. Minor offences against the person show an increase of 6,646 cases, which is due entirely to the large increase of 7,009 cases of simple hurt. The number of cases of hurt on grave and sudden provocation has diminished from 427 cases in 1880 to 22 in 1881, a difference which may be due to some change in the system of classifying the offence. It is possible that the same explanation accounts also for the large increase in the recorded number of hurt cases, and that offences which were formerly left unrecorded as being mere assaults have now been recorded under hurt; for while the number of hurt cases reported increased from 44,388 in 1880 to 51,397 in 1881, the number of such cases enquired into by the police diminished from 6,042 in

1880 to 4,945 in 1881. The number of minor offences against property decreased by 895 cases, the total being 68,813 in 1881 as against 69,708 in 1880. Petty thefts formed by far the greater number of offences of this class, the total number reported in 1881 being 50,133, as against 50,809 in the previous year. Lastly, the action taken under the vagrancy sections of the Code of Criminal Procedure was less by a fifth in 1881 than in 1880, and prosecutions under the Excise and Stamp Acts were also fewer. The general result of the figures is to show that, deducting hurt cases, reported crime as a whole was much the same in 1881 as in 1880; while, dealing with classes of offences, serious crime against the person increased, in offences against property there was little change, dakaiti and poisoning decreased, robbery increased, theft and house-breaking showed an increase under the more serious and a decrease under the pettier classes of the crime, action under the Excise and Stamp Acts diminished, and magisterial interference with bad characters, whether less needed or not, was relaxed.

The number of crimes reported increased in 24 districts and decreased in 25, and it is impossible to account for such increase or decrease in ordinary years. The only districts in which the increase was marked are Jhánsi, Bara Banki, Agra, Gházipur, Bijnor, and Saháranpur, in some of which the increase (excluding hurt and nuisance cases) was as much as 20 per cent.; but in none of them, with the doubtful exception of Saháranpur, does an explanation of the increase founded upon the occurrence of a scanty harvest apply. It appears from the district reports that in all these cases, except Saháranpur, the increase is attributed entirely to an improvement in the report of crime, and not to any excess of crime itself. The figures show have much can be done in a single year by careful supervision of the watchmen, in the improvement of crime report, and this being so, there is a corresponding risk of deterioration when that supervision is not maintained, so that deductions from district figures must be cautiously made. It is chiefly in crime against property that the police are a preventive force; and the variations in the amount of crime of this class in ordinary years perhaps afford a better test than any other statistics of the results of police administration.

The following table shows the incidence of reported crime per 10,000 of the population :--

	1880.	1881.
Including all offences—		
North-Western Provinces	39·0	39·5
Oudh	54·5	58·0
Combined	43·0	44·3
Excluding hurt and nuisance cases—		
North-Western Provinces	26·1	25·8
Oudh	40·4	40·7
Combined	29·8	29·7

The striking feature in these tables is the high incidence in Oudh as compared with the North-Western Provinces, a difference that has been noticed ever since the amalgamation of the two provinces, but which a complete inquiry has not yet determined to be due to a greater prevalence of crime in Oudh, or to a better system of reporting crime, or to both causes. Among a dense agricultural population, living in scattered hamlets and housed in mud huts roofed with light thatch, petty thefts are doubtless likely to be more numerous than among a better-housed and sparser population ; and it was the opinion of Sir George Couper that there is in Oudh greater poverty than in the North-Western Provinces, which gives rise to the commission of more crime and also prevents the people from protecting themselves by securer dwellings. Still it seems unlikely that there should be in the condition and character of the population of adjoining districts of the two provinces any such difference as the incidence in the reported crime would indicate between Cawnpore (22 offences for every 10,000 persons) and Unao (36 offences for every 10,000 persons) or between Azamgarh (16 offences for every 10,000 persons) and Fyzabad (25 offences for every 10,000 persons). In the North-Western Provinces the experience of 1881 has shown reports of crime to be deficient, and this circumstance suggests the possibility that the difference in the incidence of crime between the two provinces is in some measure due to more complete record of crime in Oudh. It has been noticed as bearing upon the question, that there is not the same disproportion between the provinces in the number of grave crimes against the person, in which concealment or failure to report is likely to be rare ; while in the ratio of convictions to population the difference

is little. There is no reason, however, why the question should not be thoroughly investigated and settled, since careful examination on the spot of the village statistics in adjoining districts, such as those above mentioned, ought to elicit the main reasons for the difference between the two provinces.

This subject will engage the special attention of the Inspector-General during the present year. Without further information as to the completeness of the record of crime, it is useless to compare crime incidence in these with other provinces, or in one district with another. Offences, whether they are to be enquired into or not, should be truly and faithfully recorded, and efforts have of late years been made to prevent concealment of crime, which demoralises the police and may mislead the administration. In petty crime, no doubt, the aggrieved party often does not think it worth his while to report, and official inquiry should not be forced upon him if it is not desired ; but the repeated occurrence of petty theft is one of the harassments of rural life, and for its prevention the village watch is directly responsible ; so that the complete report of crime, however petty, should as far as possible be secured, and the Magistrates of districts have been asked to report the general results of the local inquiries made in villages by the District Officers in order to check the village watchmen's crime reports.

The actual number of cases enquired into by the police was as follows :—

	1880.	1881.
North-Western Provinces	61,968	61,593
Oudh	27,124	27,293
Total ...	89,092	88,886

and the percentage of inquiries to reports is—

	1880.	1881.
North-Western Provinces	72	72
Oudh	58	58
Total	67	67

The number of inquiries in proportion to population was considerably greater in Oudh than in the North-Western Provinces ; but the difference in the percentage of inquiries to report is great, and is of course due to the excess in Oudh of crime reports. It would

appear that the amount of work done by the police of these provinces in making inquiries is much greater than in either of the neighbouring provinces of Bengal and the Punjáb, and it is a grave question whether so much inquiry is necessary and beneficial. It is quite true that Rs. 5 may relatively be as much to a poor man as Rs. 50 is to a richer, but the larger thefts are for the most part committed by bolder and more dangerous spirits than trifling thefts, so that it is very questionable whether the same class of criminal commits both classes of offences. A man who takes a sheaf of corn from his neighbour's field or lifts the drinking-cup from his door probably belongs to a wholly different order of offender from the burglars who plunder a villager's house; and indeed it may be said that trivial pilfering is a separate thing from theft. So that while it may reasonably be left to the injured individual to claim the assistance of the police in the former case, the interest of the community in general demands that offenders of the latter class should, if possible, be discovered and punished.

The percentage of convictions to reported offences of all kinds was 23·58 in 1881 as compared with 25·39 in 1880. Excluding nuisance and hurt cases, the percentages were 23·68 and 25·00 respectively. As there was little change in the provincial total of reported crime, these figures indicate somewhat less success in the detective work of the police in 1881 than in the preceding year.

The total number of prosecutions instituted by the police *suo motu* and by order of the Magistrate was 38,548 in 1881, as against 40,164 in 1880, and the percentage of convictions was 80·52 in 1881, as against 82 01 in the previous year. Taking cases instituted by the police *suo motu*, the percentage of convictions was 81·54 in 1881, compared with 82·75 in 1880, while in cases instituted by order of the Magistrate the percentage fell from 69·31 in 1880 to 63·02 in 1881. The result in the police prosecutions may be regarded as satisfactory. Oudh again shows a lower percentage of convictions than the North-Western Provinces, the figures for 1881 being—

	By police suo motu.	*By order of Magistrate.*
North-Western Provinces	84·74	64·59
Oudh	73·73	51·90

It is possible that this is due to less skilful and careful prosecution of cases in Oudh than in the North-Western Provinces. In the former province there are no Court Inspectors; while in the North-Western Provinces, where these officers are employed, it is their special duty to revise the cases that arrive from the rural stations, to advise the discontinuance of the prosecution when the evidence is palpably insufficient, and to obtain remands for the completion of the evidence on points overlooked by the local police officer. It is doubtless advantageous that police prosecutions should be under the charge of a special officer at head-quarters, and the question of the introduction of Court Inspectors into Oudh is under consideration. District Superintendents of Police have also been told to give as much personal care and attention as possible to the cases they send up. In the North-Western Provinces the same number of prosecutions were instituted in 1881 by order of the Magistrates as in 1880, while in Oudh prosecutions were fewer.

In the North-Western Provinces, the proportion of persons convicted to persons arrested was somewhat lower in 1881 than in 1880, while in Oudh it was somewhat higher; in Oudh police arrests were made with less discretion than in the North-Western Provinces, or there was less skilful and careful prosecution; and arrests by order of the Magistrates led to fewer convictions in Oudh than in the North-Western Provinces.

Property to the value of Rs. 5,05,674 (or 35·44 per cent.) was recovered out of a total loss of Rs. 14,26,700; and the greater part of the property was recovered in cases in which the police took action. The percentage of recoveries in 1881 was not so favourable as that for 1880; but these figures are a most fallacious test of the success or otherwise of police administration, since complainants are disposed to exaggerate their losses, while the police seek to minimise them; and one heavy loss not recovered may neutralise the recoveries of property in a large number of successfully prosecuted smaller cases.

Judged by the above tests, police work in these provinces in 1881 was not generally quite so good as in 1880, but the difference between the years was not great. Strenuous efforts were made last

cold weather to discover and point out defects in district administration, to correct errors, and to secure accurate returns; and there is hope that better results may be shown at the close of the present year. The police of these provinces have undoubtedly a laborious task, but there is no reason to believe that, taken as a whole, their duties are less thoroughly performed or less carefully supervised than in other provinces. They will in future be considerably relieved by the exclusion of hurt cases from their ordinary cognisance, and they will thus have more leisure for the investigation of the cases they take up, while the Superintendents have been directed to take a more definite share in the conduct of cases before trial.

The total number of arrests fell from 104,083 in 1880 to 102,531 in 1881. The decrease was entirely in the classes of comparatively petty crimes, the number of arrests for serious offences against person and property having increased. The number of cases reported and convicted, and the percentage of convictions to reports in each class in 1880 and 1881, was as follows :—

	Number of cases reported.		*Number of cases convicted.*		*Percentage of convictions to reports.*	
Class.	1880.	1881.	1880.	1881.	1880.	1881.
I.—Offences against the State, &c	1,186	1,239	825	813	69·56	65·61
II.—Serious offences against the person	5,425	6,090	3,057	3,258	56 35	53·49
III.—Serious offences against person and property, or property only ...	50,375	51,077	4,485	4,528	8 90	8·86
IV.—Minor offences against the person	45,466	51,890	3,400	3,479	7·47	6·70
V.—Minor offences against property	70,417	69,357	20,683	19,213	29 37	27·70
VI.—Other offences ...	18,508	17,081	15,786	14,821	85·29	86·76

and the number of persons arrested and convicted, together with the percentage of persons convicted to persons arrested in each class, was :—

	Persons arrested.		*Persons convicted.*		*Percentage of persons convicted to persons arrested.*	
Class.	1880.	1881.	1880.	1881.	1880.	1881.
I. ...	5,105	5,891	3,784	4,081	79·22	76·15
II. ...	6,707	7,533	4,134	4,646	71·34	70·98
III. ...	9,168	9,366	6,286	6,276	75·13	75·29
IV. ...	9,939	9,612	5,618	5,872	62·75	71·80
V. ...	36,437	34,986	27,941	26,329	82·03	81·22
VI. ...	36,845	35,237	32,285	31,043	91·33	91.31

It would thus appear that, except in the case of minor offences against the person and miscellaneous offences, the action of the police has generally been somewhat less successful in 1881 than in 1880, but under no class has the falling off been very marked.

Offences against coinage.—These cases have again diminished, only 219 cases having occurred in 1881, against 258 in 1880; but the offence still occurs chiefly in the same districts as have always been notorious for this class of crime. Most of the cases are said to have been attempts to pass off copper coin silvered over; and from the steady reduction in the number of cases, it would appear that the efforts of the police to suppress the crime have not been unsuccessful, although in 1881 they did not succeed very well in their prosecutions in some districts.

Rioting.—The number of cases was :—

	1880.	1881.
North-Western Provinces	316	376
Oudh	270	321
Total ...	586	697

The increase, as already remarked, is probably due to the more strict observance of the ruling of the High Court that the two factions in a riot must be separately tried. Most of the cases occurred, as usual, in Oudh and the Benares Division. In certain districts the frequency of crime of this class is notorious, and District Officers have been directed to suppress it by exemplary punishment on conviction.

Murder by robbers, dakaits, and poisoners.—Fifty-eight cases were reported, as against 59 in 1880. In only 18 cases were convictions obtained, but 9 cases were pending at the close of the year. Murder in robbery (like robbery itself) is a difficult crime to detect, and it is in many instances the work of criminal tribes: but the measures which are now being taken to bring robbery under systematic detection will, it is hoped, lead to a diminution of fatal attacks.

Other murders.—Three hundred and twenty-three cases were reported in 1881, against 312 in 1880; and 551 persons were put on their trial, of whom 62 were discharged by the Magistrate, 158 were committed to the Sessions, but were acquitted either there or

by the High Court, and 214 were convicted. The ratio of convictions was less than in the previous year; and though the police were entitled to credit when they satisfied the committing Magistrate, the acquittals in the Sessions Courts would seem to indicate that the cases were not always thoroughly prepared. In 127 cases the motive for the murder was not ascertained, and it was of course among these that the greater number of the undetected cases were included. The police analysis of the classes of murder proper is as follows:—70 of the murders were committed for sake of plunder, 107 arose out of quarrels about women, 39 were due to disputes about land, and in 38 cases women, in consequence of domestic quarrels, jumped into wells with their children.

Culpable homicide.—The number of offences of this class in 1881 and success in their prosecution were much the same as in the previous year. The work of the Oudh police was, however, inferior to that in the North-Western Provinces.

Rape.—The number of cases reported in 1881 was 321, as against 298 cases reported in 1880; and of 202 persons put on their trial by the police, no fewer than 101 were acquitted by the Magistrates. But in a large number of the reported cases the charge is a false one, made with the object of preventing the women and her relations from being put out of caste for her adultery; and if the statements of the witnesses, *primâ facie*, establish the charge, it is not in all instances easy for the police to abstain from forwarding the case to the Courts for disposal.

Grievous hurt.—One thousand five hundred and sixty-three cases were reported during 1881 as compared with 1,357 in the preceding one. This crime ought to be easy of detection; but convictions are often prevented because cases in which the wounds are not serious are compromised by the parties, and the statement of the wounded man is not always trustworthy. The crime was especially common in certain districts; and the attention of the Magistrates concerned has been directed to the more efficient prosecution and the severer punishment of offences of this class.

Thagi and dakaiti.—No cases of thagi or river dakaiti have occurred for several years. One hundred and six cases of dakaiti occurred, of which 82 were in the North-Western Provinces and 24

in Oudh. Of the 1,015 persons believed to have been concerned in these crimes 333 were arrested and brought to trial. Of these 121 were convicted of dakaiti or on other charges and 164 remained under trial or investigation. It is satisfactory to note that dakaitis of a serious type continue to decrease, more particularly in Oudh. During 1881 the band of outlaws in the Hamírpur district was broken up, and there were only two serious cases of night attacks on houses, in both of which the majority of the dakaits are believed on good grounds to have come from foreign territory. There was also a marked decrease in the number of the attacks on carriages on the highway. But a large number of petty dakaitis were committed during the year, causing much loss and annoyance to the public. Most of these lesser dakaitis are attributed to members of criminal or wandering tribes, as in 34 out of 67 dakaitis in which arrests were made men of these classes were implicated. Since the close of the year these conclusions have been still further confirmed, and a more complete organisation of plans for the detection and frustration of these professional robberies has been established. In six cases death resulted from wounds inflicted by the dakaits. In three cases the dakaits are known to have carried swords and firearms, but they were not used except for intimidation.

Robbery.—The number of cases reported in 1881 was 416, an increase of 53 cases over the previous year, but still considerably below the average of the last six years. It was pointed out last year that this crime is much more prevalent in Oudh than in the North-Western Provinces, but detection in Oudh was much less frequent than in the North-Western Provinces, the ratio of convictions having been 44 per cent. in the North-Western Provinces and only 17 in Oudh. There has been no change in 1881 in the relative incidence of the crime, but there has been a marked improvement in the detective efficiency of the Oudh police, the ratio of convictions having been 38 per cent. in the North-Western Provinces and 26 per cent. in Oudh. It seems doubtful, however, whether a trustworthy comparison between the provinces and between districts can be made, since there is a want of uniformity of procedure in different districts in classifying such acts as the snatching of a nose-ring from a woman. Such acts are a common form

of crime at fairs; and it appears that in some districts they are entered as robbery, in others as theft. Robbery is a crime ordinarily very difficult of detection, especially when money only is taken, since it is usually committed in the dark and suddenly; but the police as a whole did well.

Mail robbery.—There were ten cases reported during the year, of which three in Gonda were subsequently expunged from the registers as false. In three cases a conviction was obtained, in one case the accused was acquitted, and in three cases no clue was obtained. It is satisfactory to find that the crime has on the whole been steadily diminishing in these provinces. It was feared at first that the frequent transmission of cash by post to rural money-order offices would lead to a serious increase in mail robberies, but the danger has been obviated by the transmission of the money under fixed periodical escorts.

Poisoning.—This crime continues to decrease. There were only 30 cases in 1881, against 46 in 1880 and 53 in 1879. Some of these cases were however not professional, and two were probably accidental; in twelve cases conviction was obtained. The systematic pursuit of professional poisoners has been carried on for some years, and there is every reason to believe that organised bands of poisoners have for the present been completely broken up.

House-breaking and theft of all kinds.—These are the crimes in the detection of which the police are most employed, and the prosecution of which forms one of the most important parts of their work. In the combined provinces there were 33,238 cases of house-breaking reported in 1881 as compared with 32,774 in 1880. Inquiries were made in 87 per cent. of the reported cases in 1881, against 89 per cent. in 1880, and the ratio of convictions to reports was 11 83 in 1881, against 11·96 in 1880. The cases of simple theft reported were in 1880, 60,852, and in 1881, 60,432. Inquiries were made in 60 per cent. of the reports in 1881, against 60 per cent. in 1880, and the ratio of conviction to reports was 22·75 in 1881, against 24·59 in 1880. There was thus little change in 1881 in the incidence of crime or in the work of the police, but, judged by the figures, there was a slight diminution in their detective success. A judgment on these data must, however, be given

with hesitation until the Government is assured that the report of crime is complete, and the doubt on this latter point makes comment somewhat uncertain even on the percentage of convictions to inquiries; for though it may be assumed that the cases are genuine in which inquiry is made, inquiry cannot be made without report, and when report is full, inquiry will probably embrace a number of cases in which detective success is from the first doubtful. Gauging police work, however, by the somewhat doubtful test of the percentage of convictions to inquiries, and restricting comparison to the limits of each province, it appears that in house-breaking the North-Western Provinces police successfully detected 13·6 per cent. of the cases they inquired into in 1880 and 13·5 per cent. in 1881, while in Oudh the ratios were 13·2 and 13·5 per cent. respectively. In thefts the proportions were—for the North-Western Provinces 43·0 per cent. in 1880, 39·3 in 1881; and in Oudh 37·5 per cent. in 1880, 34·3 in 1881. The number of cases expunged after inquiry in 1880 and 1881 cannot be ascertained, but it was probably small, and the results given above may be looked upon as approximately correct. They show little difference between the two provinces in the success of their police investigations; and while there was in 1881 a small improvement in Oudh in the detection of house-breaking, in both provinces there was a considerable falling off in the detection of common thefts.

Cattle thefts.—The number of cattle thefts reported was 6,837, or 146 less than in the preceding year. In this number are included 438 cases that were not reported until the stolen cattle had been recovered, and 800 cases reported originally as strays, but eventually ascertained to be thefts. The number of cattle stolen was 10,165, and the value Rs. 1,55,004. In 1880 the number was 10,463, and the value Rs. 1,56,998. Of the cattle stolen 6,546, or 64·33 per cent., were recovered by the police or by the owners.

Arrests were made in 2,765 cases, and in 79·52 per cent. of the cases convictions were obtained.

Inquiries made during the year showed that while thefts are often reported by owners as strays, whether intentionally or in ignorance, the police are, as a rule, innocent of any intentional concealment of crime. Efforts are now being made to induce

village watchmen to make prompt report of all losses of cattle, and orders have been issued that all these reports should be read out and explained to other village watchmen on the occasion of their periodical visits to the police-station. It is satisfactory to note that, in spite of reports being more complete and correct than before, the number of recorded thefts has not increased, and that in recovering stolen cattle and in prosecuting the offenders the police were fairly successful.

Attempts at house-breaking.—The return of offences under this head is much the same in 1881 as in 1880, the number of reported cases for the former year being 15,864, against 15,877 in the latter, and the number of prosecutions 2,071 against 2,366. Convictions were obtained in 204 cases in 1881 and in 202 in 1880.

Mischief to cattle—Systematic cattle-poisoning appears for the present to have died out, only 313 cases in all having been reported in 1881. The crime in 1881 was chiefly confined to Jaunpur, Gházipur, Mirzapur, and Unao, Jaunpur being the district from which the arsenic used in poisoning had been chiefly obtained.

Vagrancy and bad character—One thousand and ninety-five cases were tried under Chapter XXXVIII. of the Code of Criminal Procedure, of which 766 were instituted by the police, 268 by order of Magistrates, and 61 at the instance of private individuals. Altogether 2,210 persons were taken before the Magistrates, and of the 1,533 ordered to find security 1,237 persons failed to do so. The average amount of security demanded was Rs. 91 in the North-Western Provinces and Rs. 82 in Oudh, and the average term of imprisonment in default was over eight months in the North-Western Provinces and upwards of eleven in Oudh. Of the 1,533 persons required to furnish security, 687 had been previously convicted.

The question whether this provision of the law needs to be applied with vigour is one that must practically be left to the discretion of the Magistrate of the district. If he finds that the criminal classes can be kept in order without having recourse to it, his powers under it should be sparingly exercised. But if special action for the restraint of vagrants and bad characters is necessary, it is important that the Magistrate and the police should act

in concert, and that no overt steps should be taken without thorough consideration, for it can be productive of nothing but harm that men should be placed on their defence as bad characters and be immediately discharged. It is not altogether satisfactory that in so large a number of cases it should have been necessary to imprison the suspects, because they cannot be always detained in jail, and the short terms of imprisonment alone possible in the majority of instances are unlikely to have any real punitive or corrective influence upon men of habitually bad life. It has been pointed out to Magistrates that a pecuniary security, even if very light, enlists the suspect's neighbours in aid of the police, and will probably be found the most efficacious method of treating bad characters.

Excise and Stamps cases.—There was in 1881 a decrease in Excise and Stamp cases, but an increase of offences against the Salt and Customs laws, for which no explanation has been discovered.

The number of inquiries by order of the Magistrate into non-cognisable cases has fallen from 7,557 in 1880 to 6,278 in 1881. The orders which were issued during the year, enjoining Magistrates to refer to the police only such cases as cannot be otherwise properly decided, will doubtless still further reduce the number of these enquiries.

The number of time-expired convicts on the police register was 67,397. Of these 8,055 are said to have returned to honest courses. Cattle-stealing has now been added to the offences, conviction for which entails subsequent surveillance by the police. The number of time-expired convicts on the registers in Oudh is still half as many again as in the North-Western Provinces, and there is reason to believe that a large reduction could without disadvantage be made. Magistrates and District Superintendents in Oudh, when inspecting police-stations, have been directed to go over the rolls and weed out the names of those whose honesty during a sufficient probation seems to have restored their character.

Out of 31,283 persons convicted during 1881 of the more serious forms of crime, 4,147 were recognised before conviction, and 265 after it, as old offenders. In some districts, however, the

number of previously convicted offenders not recognised till after their latest conviction was large; and in other districts the number of previous convictions was so low that there are grounds for suspecting that recognition is not so thorough as it ought to be. The attention of the police has been called to the subject. It has been suggested that all offenders previously convicted of any of the offences specified in section 75 of the Penal Code should be tried by a Magistrate of the first class, since otherwise there is a risk that such offenders will escape with inadequate sentences. It has been pointed out that it is in the power of District Magistrates to arrange this by local order, and general instructions are being issued on the subject.

Complaints by village watchmen in Oudh of non-payment of their wages had decreased in 1880, but in 1881 they rose from 1,310 to 1,955. The watchmen number 32,473, and are paid by the landholders either in cash or by a rent-free holding. It is only the cash-paid watchmen whose wages can be in arrears, and the Magistrate of the district has authority on proof of default in the payment to levy a six-per cent. cess from the landholder, and thereafter pay the watchmen himself. This power was used in 247 instances in 1881; and as the watchmen ought to be punctually paid, District Officers have been directed not to hesitate to exercise, if necessary, the authority with which they are invested.

The regular police force was increased during the year, chiefly for the purpose of strengthening the reserves at certain stations, by 3 head-constables and 41 constables, at an additional cost of Rs. 3,150 per annum. In the strength of the municipal police administered under Act XV. of 1873 there was a small decrease, effecting a net saving of Rs. 571 per annum, in the town police under Act XX. of 1856 a net increase in cost of Rs. 1,785, while in the village police there has been a decrease in cost of Rs. 8,974 and in strength of 125 watchmen, chiefly owing to a large reduction in the Hardoi district. There was a saving on the whole of Rs. 84,902 on the entire police budget.

The statement of punishments inflicted upon members of the regular force shows the punishment of 1,017 officers in 1881 as compared with 839 in 1880, and of 2,146 men as compared with

1,778. The increase is entirely in the North-Western Provinces, and a large proportion of the punishments were inflicted in the Government Railway Police and in the districts of Meerut and Agra. A quarterly return of punishments has been instituted by the Inspector-General of Police which will enable him to check any tendency to undue harshness. The statement of rewards, on the other hand, shows an increase in the number of officers and men rewarded, but a decrease in the amount distributed. The decrease is entirely in the rewards from the Excise, Customs, and Opium Departments, and is perhaps not to be regretted, as a tendency to work for the rewards in these departmental cases, which was injurious to the efficiency and character of the police, was in the preceding year a cause of complaint. Rewards are given much more liberally to village watchmen in Oudh than in the North-Western Provinces, and this may probably have some influence on the faithful report of crime in Oudh. Rewards to village watchmen for good service have the most beneficial effects, and Magistrates have been informed that, as far as possible, the grants made for the purpose should be fully utilised.

Criminal tribes.—Three tribes in these provinces are subjected to the provisions of Act XXVII. of 1871 and the rules framed thereunder: the Sanaurias of Lalitpur and the Aherials and Haburahs of Etah. The Sanaurias of Lalitpur are not a hereditary caste, but consist simply of organised bands of plunderers recruited from all classes. One hundred and thirty-seven names are on the register, but the resident population at the beginning of the year numbered only 90, scattered among 22 villages. During the year, 15 obtained leave on passes, 19 absconded, 18 were imprisoned, 8 died and 2 were expunged. Thirty-nine were arrested or returned. The number under supervision at the close of the year was 89, of whom 58 owned land. Twenty-three are described as without occupation. The Aheriahs and Haburahs of Etah are, on the other hand, hereditary tribes. Of the Aheriahs 544 men, women and children, living in 10 villages, are registered. The registered Haburahs number 72 and reside in 9 villages. To 62 of the total population passes were given; and 88, of whom 22 were men and the rest women and children, absented themselves without passes. Fifteen persons were arrested and punished for breaches of the Act.

Of the 146 families into which the registered population is divided 80 only hold land.

Eunuchs.—The eunuchs registered and supervised are those who are reasonably suspected of committing or abetting any of the offences specified in section 24 of Act XXVI. of 1871. The number of eunuchs on the register at the beginning of the year was 1,154. During the year 38 names were added, and 84 were struck off, of whom 54 died, 15 disappeared, 9 were exempted as being no longer suspected, and 6 were found not to be eunuchs. The occupations of registered eunuchs appear to be generally harmless. In some districts, however, they are still suspected of immoral practices. Most of them are miserably poor.

The value of the property left by eunuchs who died during the year was Rs. 3,119-7-0. Of this sum Rs. 731-9-11 escheated to Government, the rest either remained undisposed of or went to relatives or co-sharers of the deceased.

On the whole the provisions of the Act were well worked and the rules carefully observed during the year.

Arms. Licenses to possess, &c., cannon, &c.—Licenses have been granted by the Government of India to the following gentlemen :—The Mahárája of Benares, the Rájas of Rámpura, Jagamanpur, and Gursarai, the Rája of Bhadáwar, and Rája Tilak Singh of Hardoi.

Licenses to transport arms and military stores.—Ninety-eight of these were granted during the year, of which 92 were in the Cawnpore and Meerut districts alone, and the other six in Allahabad and Saháranpur. In 1880 the number granted was 87, Cawnpore and Meerut accounting for 84. The majority of dealers in European ammunition no doubt draw their supplies from Calcutta or Bombay, and the transport licenses in that case do not appear in the returns for the North-Western Provinces and Oudh. With due allowance for this, however, the small number of these licenses is noticeable ; and the inference is that, as regards ammunition at least, the local demand of the districts is met by local manufacture.

Licenses to import and export by sea.—These forms are blank for these provinces.

Licenses to export arms.—The return is blank, as licenses of this kind are granted by the Government of India and are not communicated to this Government. Copies of the licenses are, however, sent to the Magistrates of the district from which the articles are to be despatched and of the district where they cross the frontier. The Magistrates of the districts of despatch have been directed to enter in future all such licenses in the returns.

Licenses to manufacture or sell arms and ammunition, &c.—Two hundred and forty-five licenses were issued, of which 57 were new. Last year the number issued was 446. The decrease in some districts was very marked, *e.g.* :—

District.	*Number of licenses granted in* 1880.	*Number of licenses granted in* 1881.
Aligarh	24	...
Agra	40	6
Budaun	9	...
Sháhjahánpur	14	2
Cawnpore	9	...
Fatehpur	20	...
Hamírpur	25	...
Allahabad	23	3
Jaunpur	18	...
Jalaun	33	4
Bara Banki	14	1

Much of the decrease must have been due to the rule issued last year, under which firework-vendors, so long as they do not sell gunpowder, are allowed to take out licenses as simple possessors, and the largeness of the fee (Rs. 20) may also have deterred many petty dealers from applying for licenses. But equally noticeable is the difference in the number of licenses granted in the various districts. Side by side with Bijnor with 18 licenses, Bánda with 16, Gházipur with 23, Basti with 14, Lalitpur with 13, Sitapur with 15, Fyzabad with 16, Bahraich with 12, and Partabgarh with 14, are Meerut with 4, Allahabad with 3, and Cawnpore and Lucknow with none. In many districts the registration of manufacturers and sellers of arms and ammunition is manifestly incomplete. It is somewhat difficult to believe that, in districts like Cawnpore and Lucknow, there should not be a single manufacturer and dealer who ought to take out a license, and the Magistrates of those districts in which these licenses are exceptionally few have been directed to give

this matter their attention, and to be prepared next year with a plain explanation, and with proposals for placing the legitimate trade upon a proper and well-regulated footing, if any measures in this direction appear to be needed. It seems probable, on the other hand, from the large number of licenses granted in some districts, that the rule exempting firework-vendors has not everywhere been understood. It has been explained that these vendors are allowed to manufacture gunpowder for fireworks, the sole restriction being that they are not to sell gunpowder by itself. It was ascertained last year that repairers of arms had occasionally been required to take out licenses under this form. By recent orders this is no longer necessary, and reports for the current year should show what the practical effect of the exemption has been.

Licenses to sell arms and ammunition, &c.—The number of licenses granted under this form was 318, in 1880 it was 453. Hamírpur, Unao, and Sultanpur show no licenses under either this or the previous form. The numbers of licenses granted in various districts differ widely. While Bulandshahr and Etáwah have 31 and 30 respectively, Allahabad has only 5, Cawnpore 8, and Lucknow 9; and it seems somewhat improbable that, in districts like these last, dealers in gunpowder should be so few in number. In the entire Rae Bareli Division there is apparently but one ammunition shop. A considerable number of native sportsmen are believed to use native powder, and it is probable that this is not imported from other provinces, but is locally manufactured. It follows therefore from the smallness of the number of licenses to transport compared with the number of licensed vendors who are not licensed to manufacture that the provisions of the law regarding either the manufacture or the transport of ammunition are to some extent disregarded. The attention of District Officers has been drawn to this matter, and they have been directed to find out the source from which the vendors draw their supplies. It is true that persons lawfully possessing arms may transport ammunition without a license, but then only in reasonable quantities for private use.

Licenses to possess arms and ammunition.—These licenses increased from 18,854 in 1880 to 20,041 in 1881, and they in the latter year covered 19,420 firearms, 15,851 swords, and 1,414 other

weapons. There was a decrease in the Agra, Jhánsi, and Kumaun Divisions, and elsewhere an increase. The largest decrease was in the Mainpuri district, and was due to the recall of a number of licenses previously issued to retainers. In other districts the changes were unimportant.

Licenses to go armed on a journey.—These returns call for no special notice. Licenses, when applied for, seem to have been readily granted.

Licenses to possess arms in a district that has not been disarmed.—These licenses are confined to the Kumaun Division. Altogether 9,432 licenses were given, covering 3,928 firearms, 5,359 swords, and 321 other weapons.

Licenses to possess arms for the destruction of wild animals.—The number of these licenses in force was 5,806, against 5,053 in 1880. There was an increase in every division except Lucknow, where there was a decrease of 2. The licenses covered 6,428 guns, 769 swords, and 52 other weapons. More than half the whole number were granted in Kumaun, after which come the Sitapur and Fyzabad Divisions. In 13 districts no licenses under this form were granted, and in several others the number given was very small. A few licenses have been given in Bulandshahr with good results, although it was stated last year that they were not wanted: and in Basti, where no person would accept the conditions last year, 11 licenses are now in force. It appears probable that many more licenses would be applied for if the provisions of the law were more widely known, and Magistrates have been ordered to give every publicity to the provisions of the law, and been informed that these licenses should be granted freely wherever they are required. The number issued in several districts in which wild animals abound seems unduly small.

Inspections.—As a rule, inspections seem to have been regularly carried out except in a few districts, the attention of the District Officers of which has been called to the rules on the subject. The irregularities disclosed on inspection were for the most part of a trifling nature.

Punishments.—The number of persons punished during the year for evasions of the Act was 614. Of these apparently 60

were imprisoned, but the district reports do not clearly specify the number. The largest number of punishments was inflicted in the Agra and Kumaun Divisions—namely, 123 and 103 respectively. The majority of the punishments inflicted were light, and as a rule the penal provisions of the Act were worked with discretion. It has been pointed out to Magistrates that offences cognisable under the Act, which are due to ignorance or carelessness, would be sufficiently punished by a fine; and that imprisonment should not be awarded unless from the character of the offender or otherwise it can fairly be presumed that the arms were kept for an unlawful purpose.

Fines.—The amount of fines imposed under the Act was Rs. 5,349-3-6. Of this the Agra Division alone contributed Rs. 2,549-11-6, and in this division also the largest confiscations of arms during the year were made. The provisions of the law must of course be complied with; but Magistrates have been informed that in districts, like some of those of the Agra Division, bordering on Native States, in which the people are all armed and are not unfrequently turbulent, and from which raids of armed marauders into British territory are not unknown, the grant of licenses to possess arms and ammunition should not be too much restricted, and that offences against the Act due to negligence or ignorance only should not be too severely punished.

Rewards.—The amount (Rs. 480-8-0) paid in rewards was small, as was only to be expected when the circumstances under which contraband arms are usually discovered—namely, on the occasion of a search for stolen property—are taken into consideration. It is not advisable, by an indiscriminate grant of rewards, to encourage persons who volunteer information respecting unlicensed arms.

Confiscations.—The number of weapons, &c., confiscated was 1,188. These included 14 rifles, 407 guns, 25 pistols, 627 swords, 1 bayonet, 25 daggers, 29 spears, and 60 other weapons or articles. The largest number of confiscations was in the Agra and Benares Divisions. In Kumaun the number of arms confiscated, compared with the number of punishments inflicted, was small, as the arms in respect of which the offences were committed were usually

returned to the offenders on their applying for a license. This, indeed, is the proper course to adopt in cases where the offenders are of generally good character, and have omitted to take out licenses through ignorance or negligence only ; and all Magistrates have been directed to observe it.

4.—Criminal Justice.

(a)—*North-Western Provinces.*

The number of offences reported was 227,165, against 167,899 in 1880, 166,138 in 1879, 220,852 in 1878, and of cases brought to trial 92,673, against 74,489 in 1880, 73,400 in 1879, and 108,934 in 1878. "Offences reported" in 1881 cannot, however, be properly compared with those of previous years, because, as a rule, only offences which were investigated by the police or came before a Magistrate used to be shown in the annual returns as "reported," whereas for 1881 all offences, cognizable and non-cognizable, of which information was given, complaint made, or cognizance taken, have been shown. Similarly, no comparision can be made between cases brought to trial, persons under trial, and persons discharged or acquitted in 1881, and the cases brought to trial, persons under trial, and persons acquitted or discharged in any previous year, because, as a rule, till 1881, cases dismissed under section 147 of the Criminal Procedure Code or dismissed in default or on withdrawal from prosecution were not entered at all in the returns.

The only figures which admit of comparison are the number of convictions, which were 92,654, against 94,904 in 1880, 96,888 in 1879, 137,424 in 1878, 114,700 in 1877, and 97,955 in 1876. Crime, generally, therefore, may be taken to have been below the average of the normal years 1876, 1879, and 1880. Convictions (including committals) for theft were 15,226, against 15,191 in 1880; for receiving stolen property 5,900, against 5,553; for robbery and dakaiti 368, against 581; for criminal misappropriation of property 282, against 373; for criminal breach of trust 429 against 449; for cheating 290, against 301; for mischief 2,668, against 2,075; for criminal trespass 5,949, against, 5,328; and under the Code of Criminal Procedure and special and local laws 35,162, against 38,886.

Of the 92,654 persons who were convicted, 75,779, or 82 per cent., were tried regularly and the rest summarily. Fifty-nine per cent. of those convicted were fined, 29 per cent. imprisoned, 6 per cent. whipped, and the remaining 6 per cent. otherwise punished. The decrease in the proportion of persons fined is doubtless due to the decrease in convictions under the Municipalities and Police Acts.

Of the fines imposed, amounting to Rs. 3,26,891, Rs. 2,67,685 were realised within the year. The High Court realised 33 per cent. of the fines it imposed, Sessions Judges 36 per cent., and Magistrates, as in the previous year, 84 per cent. Of fines imposed, 43 per cent. were of sums not exceeding Rs. 10, 37 per cent. of sums exceeding Rs. 10 and not exceeding Rs. 50, 9 per cent. of sums exceeding Rs. 50 and not exceeding Rs. 100, and 11 per cent. of sums exceeding Rs. 100. Only 5 per cent. of fines realised were paid to injured persons by way of compensation.

Of persons sentenced to imprisonment, 19 per cent. were sentenced to fifteen days and under; 54 per cent. to more than fifteen days and not more than six months; 23 per cent. to more than six months and not more than two years; 3½ per cent. to terms varying from two to seven years; and ½ per cent. to terms exceeding seven years.

Of the persons who were whipped, 37 received 10 stripes or less, 45 per cent. over 10 and not more than 20 stripes, and 18 per cent. from 21 to 30 stripes.

One thousand eight hundred and eighteen persons, or three more than in the previous year, were called upon to show cause why they should not be required to find security for good behaviour. Five hundred and eighty-eight of them were discharged and 1,189 required to furnish security, which 549, or 46 per cent., gave, and 640, or 54 per cent., were imprisoned in default of giving.

The total number of witnesses who attended the Courts was 381,276—namely, 133 the High Court, 13,100 the Courts of Session, and 368,043 the Courts of Magistrates.

Of the 13,100 witnesses who attended the Courts of Session 8,762, or 67 per cent., were discharged on the first day; 2,227, or

17 per cent., on the second day; 973, or 7 per cent., on the third day; and 1,138, or 9 per cent., after the third day.

Of the 368,043 witnesses who attended the Courts of Magistrates during the year, 336,346, or 91 per cent., were discharged on the first day; 24,534, or 7 per cent., on the second day; 5,372 on the third day; and 1,791 after the third day. Detention of witnesses was longest in the Pilibhit, Allahabad, Gorakhpur, and Basti districts.

Of the 133 witnesses who attended the High Court, 73 were examined and 115 received their expenses; of the 13,100 who attended Courts of Session, 9,891 were examined and 9,683 received their expenses; and of the 368,043 who attended Courts of Magistrates, 330,879 were examined and 27,374 received their expenses.

The amount paid to witnesses for travelling expenses was Rs. 19,479, of which Rs. 4,724 were expended in the High Court, Rs. 5,511 in Courts of Session, and Rs. 9,244 in Courts of Magistrates.

In the High Court 86 per cent. of the witnesses who attended received their expenses; in Courts of Session 74 per cent., and in Courts of Magistrates less than 8 per cent. Each witness to whom payment was made received on the average Rs. 41-1-3 in the High Court, Re. 0-9-1 in Courts of Session and Re. 0-5-5 in Courts of Magistrates.

The average duration of cases in Courts of Magistrates was four days.

The number of appellants and applicants for revision was 11,114, against 8,097 in 1880 and 8,675 in 1879. Appellants to Magistrates of districts were 3,326 in number; to Courts of Session 3,161, and to the High Court 1,101; of whom 36 per cent., 27 per cent., and 24 per cent., respectively, succeeded in obtaining the reversal or modification of the orders of which they complained.

The cases of 1,095 persons came before the High Court in revision. The Court refused to interfere in 53 per cent. of these cases. In 5 per cent., most of which were called for on perusal of the monthly sessions statements, sentences were enhanced, in 7

per cent. they were reduced, in 21 per cent. they were reversed, and in 14 per cent. new trial or further enquiry was ordered.

The duration of appeals was 8 days in Courts of Magistrates, 29 days in Courts of Session, and 29 days in the High Court.

The duration of applications for revision was 11 days in Courts of Magistrates, 10 days in Courts of Session, and 25 days in the High Court.

The number of persons under trial in Courts of Session during the year was 2,836, against 2,610 in 1880 and 2,801 in 1879. Of these 2,836 persons, 715 were acquitted and 1,832 convicted. The duration of cases was 32 days in Courts of Session.

During the year the High Court had before it references in respect of 91 persons on whom sentence of death had been passed by Courts of Session. The results of the references were confirmation of sentence in the case of 67 persons (73 per cent), modification in respect of 10 (11 per cent.), acquittal in respect of 9 (10 per cent.), and new trial in respect of 5 (6 per cent.)

On the original side the High Court disposed of seven cases, convicting 6 persons and acquitting the same number. The average duration of the cases was 56 days.

The receipts of the Courts were Rs. 3,87,902, and the charges Rs. 15,86,085. The receipts include process-fees, other Court fees, fines, penalties of forfeited recognizances and other bonds, and sale-proceeds of property under sections 172, 354 and 417 of the Code of Criminal Procedure, and section 27, Act V., 1861. The charges include (1) a moiety of the salaries of officers exercising Criminal and Civil or Criminal and Revenue powers, and the same proportion of the salaries of their office establishments employed in both departments; (2) one-third of the salaries of officers exercising Criminal, Civil and Revenue powers, and the same proportion of the salaries of their office establishments employed in all three departments; (3) tour charges; (4) expenses of complainants and witnesses; (5) country stationery; and (6) all other contingent charges, such as cost of furniture, service telegrams, and cloth for records.

The subject of securing greater uniformity in the award of punishment, to which reference was made in last year's report, has been receiving from several Magistrates the attention it deserves; and the improvement that has already begun will probably be still more marked in the returns for the current year.

During the year rules were issued under Act III., 1879, respecting the disposal of records, books and papers of Criminal Courts, and under Act VII., 1870, as to the fees chargeable for serving and executing processes issued by Magistrates.

(*b.*)—*Oudh.*

There were in Oudh 195 tribunals open on the last day of the year, being one more than at the close of 1880. The Lucknow City Bench, counted as one tribunal, consists of 11 Honorary Magistrates.

The staff of officers comprised :—

		Europeans.			Natives.
		Covenanted.	*Military.*	*Uncovenanted.*	
In 1880	...	22	18	13	149
„ 1881	...	20	20	14	151

Besides 147 Stipendiary Magistrates, there were 58 Honorary Assistant Commissioners; and 11 Honorary Magistrates served on the Lucknow City Bench.

The aggregate cost of all Courts was Rs. 12,84,456, the receipts being Rs. 8,64,942, showing a deficit of Rs. 4,19,514, against Rs. 5,24,479 in 1880. But as some items of receipt, which were not included in the return for 1880, have been entered in the new form, it is useless to make a comparison between the returns for the two years.

The offences reported in 1881 aggregated 79,347, exclusive of cases under the Code of Criminal Procedure; being 6,703 in excess of the figures for 1880 and 8,214 over those for 1879; but 38,641 below the figures for 1878 and 21,810 below those for 1877. The increase was chiefly under the head of "hurt." Under other heads the variations were comparatively trifling. Crime increased in seven and decreased in five districts. The consensus of opinion of District

Officers is that the apparent increase is due in a great measure to the more correct reporting of trivial offences by the police.

Out of the 79,349 cases reported, 10,013 were struck off, either by order of the Magistrate as frivolous or vexatious, or dismissed under section 147, Criminal Procedure Code; the percentage being 12·6, against 13·6 in 1880. The majority of the cases thus dealt with were cases of hurt and assault, criminal trespass, theft and extortion. There was a slight increase in the number of instances in which compensation was awarded under section 209, Code of Criminal Procedure.

The number of cases brought to trial exceeds the number shown in 1880; the figures, exclusive of cases under the Code of Criminal Procedure, being 25,894 for 1880 and 27,642 for 1881. The number of persons brought to trial increased proportionately to the number of cases, being 4,459 in excess of the figures for 1880.

Results of prosecutions. Offences against public tranquillity.—Of 2,631 persons who were brought to trial in 438 cases for offences against the public peace, 640 were discharged, 608 acquitted, and 1,312 convicted, as follows:—199 of unlawful assembly, 828 of rioting, and 285 of affray. Few cases were serious.

Contempts of lawful authority of public servants.—Of 771 persons brought to trial 352 were discharged or acquitted and 405 convicted.

Public justice.—The number of persons brought to trial (518) is much below the figures for 1880, which were 816. Of the 518 only 247 were convicted, 269 being discharged or acquitted against 454 and 347 in 1880.

Coin and stamps.—There were 86 cases in which 108 persons were brought to trial, resulting in 53 being discharged or acquitted and 55 convicted. In 1880, 111 persons were brought to trial, of whom 47 were discharged or acquitted and 61 convicted. The cases relating to coin were principally passing copper coin coated with silver, and attempts to pass bad coin which the deliverers had probably received innocently.

Weights and measures.—In 1881 the figures were similar to those for 1880, being 50 persons against 49 brought to trial, 19 against 22 discharged or acquitted, and 31 against 27 convicted.

Murder.—The number of persons brought to trial for murder was two less than in 1880. The figures for both years are given below :—

	Persons.			
	Brought to trial.	*Discharged or acquitted.*	*Convicted.*	*Pending, &c.*
1880 ...	186	84	82	20
1881 ...	184	84	67	33

Of nine persons accused of robbery or dakaiti with murder, only one was convicted, and four persons charged with poisoning were discharged or acquitted. Thirteen cases of murder from motives connected with women were brought to trial, and out of 18 persons concerned eight were discharged or acquitted and seven convicted. On account of murder from other motives 153 persons were brought to trial, 64 were discharged or acquitted, 59 convicted, and three died or escaped, whilst 27 remained under trial at the close of the year.

Attempt at murder.—There was a decrease under this heading in 1881, but the cases were less successfully prosecuted, the figures being—

	1880.	1881.
Persons brought to trial	32	27
Convicted	19	14
Acquitted or released	13	13

Culpable homicide and attempts.—Under these headings 66 cases, involving 140 persons, were brought to trial, against 65 cases and 148 persons in 1880 ; 68 persons were discharged or acquitted and 49 convicted.

Causing death by rash or negligent act.—There were 14 cases and 21 persons, of whom 17 were convicted in 1881 ; against 14 cases and 26 persons, of whom 10 were convicted in 1880.

Attempted suicide.—The number of persons brought to trial in 1881 were 323, against 294 in 1880 ; 142 against 98 were discharged or acquitted, and 181 against 195 convicted.

Concealment of birth, &c., &c. (*sections* 312 *to* 318).—One hundred and eighteen persons were brought to trial in 99 cases. Of these 83 were convicted and 32 discharged or acquitted. As usual, the majority of cases fell under section 318. There were 79 cases and

95 persons brought to trial in 1880, of whom 27 persons were discharged or acquitted and 65 convicted.

Hurt with aggregating circumstances.—There is an increase of 40 cases under this heading ; 590 persons were brought to trial, 233 discharged or acquitted, and 338 convicted, being 69, 29, and 32 in excess of the figures for 1880.

Other cases of hurt.—Out of 9,898 persons brought to trial in 4,917 cases, only 2,164 were convicted ; of the rest, 7,621 were discharged or acquitted, 10 died or escaped, and 103 remained under trial. In 1880 the figures were 4,218 cases, 8,746 persons brought to trial, of whom 6,599 were discharged or acquitted, 2,056 convicted, six died or escaped, and 85 remained under trial. A great number of these cases were compromised.

Criminal force or assault.—Under this heading there is a considerable increase over the figures for 1880 ; 1,396 cases and 3,052 persons against 1,230 and 2,456 were brought to trial ; 2,361 against 1,821 were discharged or acquitted, and 632 against 592 were convicted.

Kidnapping, &c. (*sections* 363 *to* 374).—There were 83 cases in which 154 persons were brought to trial, 82 discharged or acquitted, and 65 convicted. In 1880, in 85 cases 192 persons were brought to trial, 81 discharged or acquitted, and 88 convicted.

Theft.—In 4,638 cases, 6,526 persons were brought to trial, of whom 1,974 were discharged or acquitted and 4,519 convicted. The percentage of convictions (69) is below that for 1880, which was nearly 72.

Robbery and dakaiti.—Ninety-nine cases, involving 267 persons, were brought to trial—113 persons were convicted, 88 discharged, and 49 acquitted. In 1880, of 264 persons brought to trial, only 84 were convicted, being 31·8 against 42·3 in 1881.

Receiving stolen property.—Under this head the figures are above those of 1880, as shown below :—

		Tried.			
		Cases.	*Persons.*	*Discharged or acquitted.*	*Convicted.*
1880	...	822	1,310	408	878
1881	...	901	1,399	417	966

The percentage of convictions in 1881 was 69, against 67 in 1880.

Criminal trespass resulting in death or grievous hurt.—There were three cases, in which eight persons were brought to trial, of whom five were discharged, two acquitted, and one convicted.

Criminal trespass for commission of serious offences.—In 1,984 cases, 2,919 persons were brought to trial, of whom 533 were discharged, 394 acquitted, and 1,959 convicted. The figures for 1880 were 2,003 cases, 2,871 persons brought to trial, of whom 925 were discharged or acquitted and 1,890 convicted.

Other cases of trespass.—There is an increase under this heading over the figures for 1880, as 783 cases against 627, and 1,359 persons against 1,237, were brought to trial. Many of these complaints are said to be instituted in order to obtain by a Magistrate's order rights which should be established in the civil courts. Eight hundred and ninety-six persons against 972 were discharged or acquitted, and 439 against 352 were convicted. The percentage of convictions in both years was low, being 32 in 1881 and 28 in 1880.

Offences relating to marriage.—There were 819 cases, involving 1,008 persons brought to trial; 428 persons were discharged, 368 acquitted, and only 169 convicted; 13 died or escaped, and 30 remained under trial. These cases are generally brought by the very lowest castes. If the prosecutor gets his wife back he drops the prosecution, while many of the cases that are tried fail because the woman is found to be only a mistress. In 1880, 604 cases and 823 persons were under trial; of the latter 639 were discharged or acquitted, 147 convicted, three died, escaped, &c., and 34 remained under trial. The percentage of convictions rose from 15 to 17.

Breaches of cantonment rules.—In this class of offence there is a slight increase. Four hundred and ninety-two cases were brought to trial, and out of 873 persons concerned, 792 were convicted. The figures for 1880 were 460 cases and 757 persons tried and 642 persons convicted.

Cattle trespass.—The figures under this head show a considerable increase. In the year under review 1,051 cases, 2,732 persons were tried, against 738 cases, 1,912 persons in 1880. Two thousand two hundred and thirty-five persons against 1,511 were,

however, discharged or acquitted, 450 against 370 were convicted, the percentage of convictions being 16 against 19.

Breaches of municipal bye-laws.—There was a decrease under this heading, 6,595 persons being convicted out of 7,485 tried in 1881, against 7,300 out of 8,061 tried in 1880. The percentage of convictions was almost the same, being 88 against 90 in 1880.

Nuisances.—Though the percentage of convictions under this heading rose from 91 to 93 in 1881, the figures were almost doubled. This increase is partly due to many injunctions having been issued in the rainy season regarding dilapidated houses so as to prevent danger to life. In 1880, 1,475 persons were convicted out of 1,610 tried; whereas in 1881, 2,471 were convicted of 2,643 brought to trial, which shows that charges were not instituted carelessly.

Offences under the stamp law.—The figures rose considerably under this heading, and the percentage of convictions from 67 to 77, 725 persons against 454 in 1880 being convicted out of 928 against 677 tried.

Proceedings under Criminal Procedure Code. Security for keeping the peace.—This heading shows an increase also: 2,078 persons —of whom 792 were discharged and 1,235 convicted—having come before the Courts, against 1,789 tried, 778 discharged, and 992 convicted in 1880.

Security for good behaviour.—There was a considerable decrease under this class of cases, as 516 persons were tried against 738 in 1880, 129 against 192 discharged, and 382 against 543 convicted. The percentage of convictions (73) was the same in both years.

Magisterial work.—As a consequence of the increased number of offences reported, the magisterial work rose from 50,459 to 55,381 persons dealt with. The number of cases was 663 below, and of persons 877 above, the average of the preceding four years:—

For trial in	1877.	1878.	1879.	1880.	*Average.*	1881.
Cases ...	29,600	38,639	24,452	27,347	30,009	29,346
Persons ...	56,496	65,507	45,554	50,459	54,504	55,381

Of the 55,381 persons who appeared before the Courts—

30,387 were arrested by the police.	21,347 appeared on summons.
2,003 appeared on warrants.	1,143 appeared voluntarily.

The persons dealt with by Honorary Magistrates (7,655) were fewer than in 1880, when 10,415 came before these gentlemen.

The difference is accounted for by the Lucknow Bench having dealt with only 2,958 persons, against 6,919 in 1880, in consequence of the City Magistrate having taken up the bulk of the cases under the municipal bye-laws himself. Tahsíldars dealt with 13,013 persons, against 12,011 in 1880. Native Assistants dealt with 17,999, against 14,942 in 1880, and European Assistants with 14,772, against 11,796 in 1880.

At the close of 1880, 272 cases remained undecided, and 303 at close of 1881. The average provincial duration was atmost the same as in 1880, being 6·22 days against 6·23.

Magistrates examined 84,692 witnesses, against 77,814 in the preceding year. Of these 80,918 were only detained one day. Forty-seven thousand eight hundred and ninety-eight witnesses were dieted at the expense of Government at a cost of Rs. 21,334, or on an average of seven annas six pies each, being seven pies more than the average for 1880.

In the following comparative table are shown the forms of punishment inflicted during the two past years :—

	1880.	1881.		1880.	1881.
Rigorous imprisonment with solitary confinement.	2,422	2,484	Whipping in addition to imprisonment.	229	239
Rigorous imprisonment without solitary confinement.	5,293	5,271	Whipping in lieu of imprisonment.	2,243	2,379
Simple imprisonment	369	345	Persons ordered to give security, &c., for good behaviour and keeping the peace.	1,557	1,615
Fine with imprisonment,	2,543	2,501			
Fine without imprisonment.	15,602	16,634			

The total amount of fines imposed was Rs. 83,737, being Rs. 8,458 less than in 1880. Rs. 70,074, or 83 per cent., were realised, being 8 per cent. in excess of the realisations of the preceding year. In 92 per cent. of the cases the fine imposed did not exceed Rs. 10 by the fines imposed. Rs. 15,691 were awarded to the complainant as compensation.

There were 619 appeals to the Deputy Commissioner, against 362 in 1880. In 23 per cent. of these the sentence was reversed and in 12 per cent. modified.

Sessions work.—There were 425 cases involving 722 persons committed to the sessions, or 29 cases less than in 1880. The average duration of trials rose from 40 to 42 days, counting from the date of commitment, but the duration from date fixed for hearing was only 1·64 against 1·94. Trials with assessors decreased from 420 in 1880 to 407, and as usual, in the bulk of the sessions trials disposed of, the Judges concurred in the opinion of the assessors. The number of witnesses examined in the sessions courts was 3,963, against 4,152 in 1880. Of these witnesses 3,518 were detained for one day, 372 for two days, 65 for three, four for four days, and four for more than a week. The number of witnesses dieted (3,756) exceeded the number (3,334) dieted in 1880, but the cost was less, being Rs. 2,902-12-0 against Rs. 3,334-1-0 in 1880, and at an average of twelve annas and four pies against one rupee.

The following are details of the various punishments awarded by Sessions Judges during the past two years :—

	1880.	1881.
Death	18	25
Transportation for life	79	70
„ for a term	64	94
Imprisonment with solitary confinement	98	79
„ without „ „ ..	231	152
„ simple	4	6
Fines	61	66
Whipping	24	9

Fines were imposed to the amount of Rs. 4,326, of which only Rs. 2,667 were realised. Of the fines imposed Rs. 2,236 were awarded as compensation, but only Rs. 538 were paid.

Appeals to Commissioners were 1,100, against 852 in 1880. In 142 cases the sentence was reversed and in 69 modified. In six cases the proceedings were quashed. There were only 11 cases pending at the close of the year, and the average duration fell from 9·52 to 8·82 days.

The proceedings in six cases were quashed.

Judicial Commissioner's Court.—In the following statement are shown the number of persons whose cases were disposed of by the Judicial Commissioner in the years 1880 and 1881. There

was an increase of 215 on the whole, but it was confined to revision cases. In appeals the number fell from 321 to 251.

	1880.	1881.
Report for confirmation of death sentence ...	19	20
Appeals	321	251
REVISION SIDE.		
Application by parties	108	118
References by Commissioners and Deputy Commissioners.	200	231
Cases called for *suo motu* by Judicial Commissioner.	329	572
Total ..	977	1,192

Altogether the cases of 4,569 persons came under revision ; of this number the cases of 2,866 persons were called for *suo motu* by Deputy Commissioners, 525 by Commissioners, and 674 by the Judicial Commissioner. Altogether the sentences of 1,025 persons came in revision before the Judicial Commissioner. The sentences of four persons were enhanced, and of 78 reduced ; 223 sentences were reversed ; in five cases the proceedings were quashed ; in 27 a new trial or further enquiry was ordered ; 104 cases were pending at the close of the year, and in 584 cases the sentences were confirmed.

5.—PRISONS.

The daily average jail population during the year was 28,068·54. The details of this population were as follows :—

	Males.	*Females.*	*Total.*
Convicts	24,949 50	1,527·50	26,477·00
Under trial	1,260·00	82·55	1,342 55
Civil	243 12	5 87	248 99
	26,452 62	1,615 92	28,068·54

The following table shows in outline the main features of the year's population as compared with that of each of the five preceding years :—

		1876.	1877.	1878.	1879.	1880.	1881.
Received during the year.	Convicts ...	51,610	63,772	88,223	49,625	46,502	45,519
	Under trial	48,901	66,303	84,997	49,386	46,272	46,449
	Civil ...	3,508	2,963	3,365	2,789	2,683	2,699
Total ...		104,019	133,038	176,585	101,800	95,457	94,667
Daily average number.	Convicts...	28,698 00	26,536 00	37,323·00	32,912·00	27,672·75	26,477·00
	Under trial	1,450·25	1,924 75	2,151·00	1,373 00	1,259·50	1,342·55
	Civil ..	349·65	279·25	310·33	263·85	203·24	248·99
Total ...		30,497·90	28,740·00	39,784·33	34,548·85	29,175·49	28,068·54
Sentenced to imprisonment during the year ...		43,577	53,983	73,221	41,514	39,391	38,776

The decrease in the daily average for 1881, although the number sentenced to imprisonment fell off only slightly, was due to the larger number of short sentences passed. Twenty-six districts showed a falling off, and 19 an increase in the number sentenced to imprisonment. The distress from scarcity and bad harvests which prevailed in 1877 and 1878 was the cause of the abnormally large number of jail inmates in those years. Crime has now fallen to its normal level. The number of habitual criminals out of the total number of convicts in the jails at the close of the year 1880 was somewhat larger than in the previous year; and their number compared with the total number of convicts admitted during the year was slightly smaller than in the previous year. Judging by the figures supplied for other provinces, it would seem that the recognition of habitual criminals in the jails of the North-Western Provinces and Oudh is conducted satisfactorily. The number of recognitions before conviction was also fairly good, as 88·35 per cent. of those recognized as habituals were detected as such in the Courts of the Magistrates before conviction. In a few districts there is room for improvement in this respect, and the attention of the District Officers has been drawn to the matter. The number of escapes was small, only 21 for a total convict population of 65,599. Thirteen were from gangs working outside the walls, and eight from inside the jails. Thirteen persons were recaptured. None of the escapes presented any features worthy of record. The officials from whose carelessness these resulted were in every instance punished. It should be mentioned as a set-off against these escapes that several daring attempts at escape were frustrated by the officials. Rewards to the amount of Rs. 165 were paid for the recapture of escaped prisoners, of which sum Rs. 100 was paid to private individuals by whose aid the recaptures were effected.

The conduct of the convicts during the year was on the whole good. One man assaulted the jailor of the Central Prison, Meerut, and as he had been twice before convicted of similar assaults, he was committed to the Sessions and sentenced to imprisonment for life. This sentence was on appeal reduced to one of three years' rigorous imprisonment by the High Court. In the Kheri Jail one warder was assaulted by a prisoner, but not seriously injured. The offences against jail discipline were of the usual kind: refusal to

work, or to give a full tale of work, and the possession of forbidden articles, chiefly tobacco. The general percentage on the total jail population of the provinces of jail inmates punished for offences committed within the prisons fell from 11 7 to 9·8 ; but there are still great variations in the number of punishments inflicted in different jails, the percentages ranging from one per cent. in the Bánda District Jail to 30 per cent. in the Bara Banki Jail. The attention of officers of the department has again been called to the subject. Whipping, as a punishment, was resorted to in only 47 per cent. of the total cases of punishment, as against 54 per cent. in the previous year. The want of solitary cells in many jails, which keeps this proportion at a higher figure than is desirable, is being supplied. Out of the whole body of convicts 9,040 only were, under the rules, in a position to gain remissions of sentence by good conduct; and 379 of these gained a remission, while 3,964 came under the mark system for industry, but failed to gain a remission. The total number who gained remissions of sentence in the jails of the North-Western Provinces and Oudh seems small. But it has been ascertained that Superintendents of Jails pay due attention to the matter of awarding marks for good conduct, and the method of granting good-conduct marks and remissions having been again considered, no sufficient reason for modifying it has been found.

The juvenile population was 277 only. At each Central Prison there is a separate ward for boys, which is completely shut off from the rest of the jail, and to which all juveniles sentenced to imprisonment are immediately forwarded. The only exception is in the case of boys whose term of detention is less than 14 days. In such cases careful arrangements are made for the separation of the boys from the other prisoners. On arrival at the Central Prison boy convicts are divided into two classes : (1) those under 12, and (2) those who, though over 12, have not arrived at puberty. Only these two classes are considered as juveniles and kept in the juvenile prison. All young prisoners who have arrived at puberty are classed as adults and kept separate from the younger boys. They are not however confined with ordinary adult prisoners, but, though labouring with them during the day, are carefully separated at night in a separate barrack, or in separate cells if separate

barrack accommodation is not available. In the juvenile wards the boys are educated and taught some useful craft. The account given of their discipline and education is satisfactory. Many of them are apt scholars and make considerable progress. The result of the attempts to teach illiterate adult prisoners to read and write are on the other hand said to be very discouraging. Out of a daily average of 26,477 convicts, 2,315 males and 51 females regularly attended school. Out of 38,776 admissions into jails, 94·63 per cent. were totally illiterate, or affirmed that they were so; 3·91 per cent. were able to read and write a little; and 1·46 per cent. were able to read and write well.

The number of reductions in grade amongst the prisoner officials increased during the past year from 34 to 44 per cent. of the total number employed. Their fault almost invariably is slackness in carrying out the prison regulations. They seem to be able to dissociate themselves from their fellow-convicts so far as to prevent attempts at escape and to aid fairly in exacting work, but they seem unable to realise that the possession of tobacco or money or sweetmeats by a prisoner is an offence against prison discipline. Still, even allowing for this, they are often more trustworthy than the paid warders. The latter are usually men of a somewhat inferior stamp; they necessarily have greater opportunities and temptations to abuse their power than the prisoner-warders and their pay is hardly sufficient for their position. A correspondence has now been entered into with the Military Pension Department with the view of securing the services of military pensioners as warders and night-watchmen. The Military Paymaster of the circle has been asked to give the names and addresses of such pensioners in each district as are likely to be able and willing to take service as prison officials, and Superintendents of Jails will be instructed that, on the occurrence of vacancies in their establishments, such men as are fit for the duties required be selected from the lists furnished by the Pension Paymaster.

The only change made in the diet of the prisoners during the year consisted in the withdrawal of the order prescribing short diet on Sundays to habitual criminals confined in the Central Prisons. It was found in practice that, under the hard labour and strict discipline of the Central Prisons, the reduction of diet for

even one day in the week was attended by a falling off in weight and lowered condition. The plan of kitchen first designed in the Benares Prison has been introduced into a considerable number of the jails, and as funds become available it will be introduced into all. The expenditure on fuel has been reduced 50 per cent. by the plan, and at the same time there is a marked improvement in the cleanliness and order of the cooking.

The daily average of the prisoners sentenced to labour was 22,417; the average number of sick and infirm was 2,204·02; and 10,008·92 were on an average employed as prison officers or servants, on gardening or jail repairs, and on preparing articles for use or consumption in jails. On jail buildings 3,817·09 were employed, and on industrial manufactures 8,539·34. Of these latter 22·9 per cent. were employed on the same kind of labor as had engaged them when free.

Three thousand three hundred and fourteen female prisoners were released during the year, of whom 2,024 were either made over to their friends or sent home under proper escort, and 1,290 (mostly prostitutes, homeless wanderers and old women) were released at the jail gate.

The expenditure in the guarding and maintenance of the prisoners, excluding civil prisoners and those confined in separate lock-ups, was Rs. 9,77,146, of which Rs. 10,060 was on account of 683 under-trial prisoners. There were, in addition to these, 659 others confined in separate lock-ups, whose maintenance cost Rs. 31,275. The average cost of the convicts and of the under-trial prisoners confined in divisions of jails was Rs. 35-15-7¾ per head, and there was a decrease as compared with the foregoing year under almost every one of the items which go to make up this sum. The detail of the cost was as follows :—

	Rs.	a.	p.
Rations	14	2	0¾
Establishments	13	11	5½
Police-guards	3	2	1¼
Hospitals	1	0	11¼
Clothing	2	1	10½
Contingencies	1	13	2½
Total ...	35	15	7¾

During 1880 the industrial labour of the prisoners realised a gross profit of Rs. 2,40,972; during the past year it has realised only Rs. 2,12,000. To this, however, must be added the value of the convict labour employed on the erection of new buildings, which is estimated at Rs. 15,194, so that the total value of the year's work, both factory and building, must be reckoned at Rs. 2,27,194. The percentage of profit on the capital employed was Rs. 29-13-11. The total cost of the department, including general superintendence, was Rs. 14,17,077. The actual proceeds of convict labour were Rs. 5,09,397, making the net cost Rs. 9,07,680, which was spent on the maintenance of 28,932 prisoners, convicts, and under-trial prisoners.

The health of the prisoners during the year was on the whole good. In spite of a slight increase in the ratio of the sick, the death-rate fell by 5 per mille of average strength. The immunity from cholera enjoyed during the year was almost perfect, and speaks well for the good sanitary condition of the convict population. The total number of deaths was 668; of those who died 48 per cent. were received into jail in bad or indifferent health, and from a careful analysis of the cause of death in each case, it was ascertained that 138 of the deaths were attributable to diseases which had no connection with jail conditions. Mortality did not increase with the length of sentence, except perhaps in the case of prisoners whose sentences were for more than seven years. In the case of these prisoners, however, the numbers were much smaller than those of any of the other classes, and the percentage is therefore of less value. Of convicts received into jail during 1881, 80·7 per cent. were in good health, 13·8 were in indifferent health, and 5·5 were in bad health. These percentages are the same as in the previous year. Of those released, 91 per cent. were in good health and only 9 per cent. in bad or indifferent health: so that improvement takes place in the health of convicts generally during their period of confinement. This fact still further illustrates the superior sanitary conditions in which the convicts are kept and proves the general carefulness of the management which they receive. But while the sanitary condition of the jails generally was satisfactory, there are a few of which this cannot be said. To improve these every effort is being made. The unhealthiness of some at

least of these would appear to be due chiefly to bad situation, and their condition will receive special attention.

6.—Civil Justice.

(a.)—*North-Western Provinces.*

The number of original suits instituted in the Civil Courts subordinate to the High Court was 86,178, exclusive of those received on remand, review and revival. The number of suits disposed of was 87,110.

In the previous year the number of suits instituted was 93,352, including cases received on remand, review, and revival. If these cases, which were 1,204 in number, be deducted, there is a decrease of nearly 6,000 suits to be explained.

In the Gházipur, Meerut, and Benares districts and in the Jhánsi Division there was an increase in the number of suits instituted. In all other districts, and particularly in the Rohilkhand Division, there was a falling off in litigation.

This falling off is variously explained : by the unfavourable season and scanty produce of the kharíf and rabi harvests of 1880-81, by a bad sugarcane crop, and by agricultural depression resulting from a succession of bad harvests.

In two or three of the annual district reports the opinion is expressed that the scale of process-fees, which was prescribed in 1880 and remained in force up to 31st October, 1881, was in some respects too high and tended to check the institution of suits of value not exceeding fifty rupees. This opinion appears to be not without foundation. It is difficult to compare the statistics of 1881 with those of 1880, both because till 1881 the Courts had no instructions for the uniform classification of suits and because the returns of 1880 do not show how many suits were instituted of value not exceeding fifty rupees. But suits of value not exceeding one hundred rupees were more numerous by nearly five thousand in 1880 than in 1881. The revised scale of process-fees came into force on the 1st November, 1881.

Whatever may have been the causes of the falling off in litigation in 1881, they appear now to be ceasing to operate, the number of suits instituted in the first quarter of 1882 having been 25,372, against 22,904 in the corresponding quarter of the previous year;

Notwithstanding that there were fewer suits instituted, contested cases were more numerous in 1881 than in 1880 by 192, and appeals to District Courts by 515, the number of contested suits being 27,034 against 26,842, and of appeals from decrees 8,905 against 8,390. This is explained by the fact that in both years title and other suits, as opposed to suits for money and movables, were nearly equal in number, and that the value of the property under litigation was much larger in 1881 than in 1880. In 1880 the value of both suits and appeals (disposed of) was Rs. 2,07,14,020 only, while in 1881 the value of suits alone was Rs. 2,20,86,998.

There was also a marked increase in appeals to the High Court from appellate decrees, a larger number of such appeals having been instituted than in any year since Act XVIII. of 1873 was passed.

The average number of days during which each contested suit lasted was in the Courts of—

District Judges	133 days
Subordinate Judges	75 ,,
Munsifs	59 ,,
Judges of Courts of Small Causes...	35 ,,

as compared with—

District Judges	83 days
Subordinate Judges	73 ,,
Munsifs	45 ,,
Judges of Courts of Small Causes	23 ,,

shown for the previous year.

The average duration of uncontested suits was in the Courts of—

District Judges	60 days
Subordinate Judges	38 ,,
Munsifs	26 ,,
Judges of Courts of Small Causes...	24 ,,

as compared with—

District Judges	31 days
Subordinate Judges	37 ,,
Munsifs	25 ,,
Judges of Courts of Small Causes...	17 ,,

shown for the preceding year.

It will be observed that in every class of Court an increase is shown in the duration both of contested and of uncontested suits.

Much of the increase may be unreal and due to more accurate registration and calculation of the duration of suits. In accordance with the orders of the Government of India, new registers were prescribed by the High Court and brought into use from the 1st January, 1881.

Among the miscellaneous cases (judicial) which came before the Courts were 267 applications for declaration of insolvency; 235 commissions received from other Courts for examination of witnesses; 425 applications for permission to sue or to appeal *in formâ pauperis;* 5 cases under section 14, Act XVIII. of 1879; 258 cases regarding the property of intestates under section 7, Regulation V. of 1799, in which a claimant appeared; 1,635 applications under Regulations I. of 1798 and XVII. of 1806, of which 128 were by mortgagors for redemption and 1,507 by mortgagees for foreclosure; 12 applications under Act XIX. of 1841; 679 applications for certificates of guardianship of minors, or of administration of their property, under Acts XL. of 1858 and IX. of 1861, or for the revocation of such certificates; 16 applications regarding the care of lunatics' estates and the guardianship of their persons under Act XXXV. of 1858; 587 applications for certificate under Act XXVII. of 1860; and 7 applications under section 265, Act IX. of 1872, for winding up the business of firms after termination of partnership.

Of the 267 applications for declaration of insolvency, 73 only were granted, 52 being rejected, 75 withdrawn or otherwise not prosecuted, and 67 undisposed of at the close of the year. Claims amounting to Rs. 86,244 were admitted, of which less than two per cent. were satisfied.

Applications for permission to sue or to appeal *in formâ pauperis* were most numerous in the Jaunpur district (46) and fewest in the adjoining district of Azamgarh (3).

In only five cases was it deemed necessary by the Civil Courts to institute enquiries under section 14, Act XVIII. of 1879, into misconduct alleged against pleaders and mukhtars.

In the returns of previous years all cases under section 7, Regulation V. of 1799, were shown. This year only those cases

are shown in which a claimant appeared. From a comparison of the returns of 1881 with those of 1880 it would appear that, of the personal property of intestates forwarded to District Courts, the property of but one intestate out of every eight is subsequently claimed. The sale proceeds of the unclaimed property amounted to Rs. 6,916 in 1881.

Applications by mortgagors for redemption were most numerous in the Gházipur (28), Gorakhpur (21), and Jhánsi (20) districts. In the Agra, Aligarh, Bareilly, Bánda, Farukhabad, Mirzapur, Moradabad, Mainpuri, and Sháhjahánpur districts there were no such applications.

Applications by mortgagees for foreclosure were most numerous in the Cawnpore (377), Gorakhpur (312), Azamgarh (146), Mainpuri (143), and Gházipur (103) districts, and least numerous in the districts of Bareilly (3), Mirzapur (3), Aligarh (6), Shahjahánpur (6), and Agra (7).

Of the certificates of administration applied for under Act XL. of 1858, 526 were granted, and the court-fees paid on them amounted to Rs. 10,388. The average value of the estates in respect of which the certificates were granted was, therefore, from Rs. 2,000 to Rs. 3,000. The largest number of certificates was granted in the Saháranpur district (80). In the Jaunpur district the number was 5 only, in Agra 7, and in Gházipur and Sháhjahánpur 8.

Applications for certificates under Act XXVII. of 1860 were most numerous in Cawnpore (134), Benares (74), and Bánda (66) districts, and fewest in the districts of Aligarh (3), Mainpuri (3), Bareilly (6), Sháhjahánpur (7), Jaunpur (7), Meerut (8), and Gorakhpur (10). The number of certificates granted under Act XXVII. of 1860 was 456, and court-fees amounting to Rs. 14,144 were paid on them.

Of the applications under section 265, Act IX. of 1872, four were filed in the District Court of Saháranpur, two in that of Agra, and one in that of Cawnpore.

Probate was granted in 28 cases and letters of administration in 13, and the court-fees paid amounted to Rs. 7,626 and Rs. 2,410 respectively.

Four thousand one hundred and twenty-nine appeals from decrees were disposed of by District Judges, 4,721 by Subordinate Judges and Judges of Courts of Small Causes exercising powers under section 51, Act XI. of 1865, and 96 by the Commissioner of Jhánsi.

Of the appeals disposed of by District Judges 995 were from decrees of Subordinate Judges.

The result of these 8,946 appeals was confirmation of the decree of the Lower Courts in 5,202 cases (58 per cent.), modification in 1,234 (14 per cent.), reversal in 1,783 (20 per cent.), remand under section 562 of the Code in 508 (6 per cent.), summary rejection in 23, and dismissal for want of prosecution in 196 (2 per cent).

District Judges confirmed the decree of the Lower Court in 60 per cent. of the appeals they disposed of and Subordinate Judges in 57 per cent.

Of appeals to the High Court from original decrees 101, and of appeals from appellate decrees 1,145, were disposed of. Of the original decrees appealed from, 60 per cent. were confirmed, and of the appellate decrees 77 per cent.

The average duration of appeals was 54 days in Courts of Subordinate Judges and 70 days in Courts of District Judges. In the High Court the average duration of appeals from original decrees was 309 days, and of appeals from appellate decrees 202 days.

Miscellaneous appeals are appeals from orders under section 588 of the Code of Civil Procedure and appeals from orders in miscellaneous cases (judicial). With the exception of a few disposed of by the Commissioner of Jhánsi, these appeals were all disposed of by District Judges, the High Court having in 1881 authorised no transfers of such appeals to Subordinate Judges under section 27 of the Bengal Civil Courts Act, 1871. The average duration of miscellaneous appeals was 62 days.

The number of applications for execution of decrees before the Courts is shown as 101,903, against 122,336 in the previous year. The falling-off is attributed (1) to the operation of the rules made under section 320 of the Civil Procedure Code, and, in a minor degree, (2) to the causes which are said to have led to the falling-off

in the institution of original suits; and (3) to the orders of Government, referred to below, regarding the consequences to public officers of their salaries being attached.

In 1880 attachments of immovable property appear to have been more than twice as numerous as in 1881. The main cause of this is said to be the delay and expense involved, first, in the enquiry by the Civil Court as to whether the property is "ancestral" within the meaning of the orders of Government issued under section 320 of the Civil Procedure Code, and as to the incumbrances to which the property is subject; and, secondly, in the subsequent proceedings before the Collector.

It is possible, however, that much of the decrease in the number of applications for execution of decrees in 1881 was due to causes operating only temporarily. In the first quarter of the present year applications for execution of decrees were nearly 30 per cent. more numerous than in the corresponding quarter of 1881, the number filed in January-March of 1881 having been 24,992 only, while in January-March of 1882 it was 31,145 *plus* the unknown number of applications filed in the Courts of the Subordinate Judge and Munsif of Gorakhpur, which were destroyed by fire early in April.

The number of decrees transferred during the year to Collectors under section 320 of the Code of Civil Procedure was 3,703,* of which the Meerut revenue division contributed 1,079, the Agra division 898, the Allahabad division 312, the Rohilkhand division 794, the Benares division 592, and the Jhánsi division 28.

*Allahabad	80	Jhánsi	14
Agra	504	Jalaun	9
Azamgarh	163	Jaunpur	51
Aligarh	400	Lalitpur	5
Bareilly	144	Mirzapur	32
Benares	3	Meerut	422
Bánda	60	Moradabad	307
Cawnpore	121	Mainpuri	225
Farukhabad	169	Saháranpur	257
Gházipur	176	Sháhjáhanpur	343
Gorakhpur	218		

In execution of 1,739 applications, moieties of the salaries of 1,864 judgment-debtors were ordered to be withheld under section 268 of the Civil Procedure Code. Of these 1,864 judgment-debtors, 1,605 were public officers and 259 railway servants, 966 of the former and 41 of the latter drawing salaries not exceeding ten rupees.

In the previous year the salaries of 3,222 public officers and 243 railway servants were attached, 2,461 of the public officers and 58 of the railway servants drawing salaries of ten rupees a month or less.

The great falling-off in the number of attachments of small salaries is due to the orders passed by the Government towards the close of 1880 requiring the dismissal of officials under certain circumstances of attachment. Attachments of salaries of railway servants whom the orders did not affect were more numerous in 1881 than in 1880.

The number of witnesses summoned to give evidence or produce documents at the hearing of original suits during the year was 194,421, the amount paid to whom for travelling and other expenses was Rs, 1,38,917. The average sum paid to each witness varied from Re. 1-5-7 in the Gorakhpur district to Re. 0-4-9 in the Jhánsi district, the general average for the provinces being Re. 0-11-5.

The number of parties and witnesses examined at the hearing of original suits was 139,819.

Legal practitioners' fees adjudged as costs in District and Subordinate Courts during the year amounted to Rs. 11,09,028.

There were 2,690 legal practitioners practising in the North-Western Provinces—namely, 18 advocates, 44 vakils, 509 pleaders of the upper subordinate grade, 1,191 pleaders of the lower subordinate grade, and 928 mukhtars.

The income of the Civil Courts of the provinces during 1881 amounted to Rs. 22,59,653, against Rs. 22,80,883 in 1880. The income from stamps (exclusive of those used to denote process-fees) was Rs. 16,26,841, against Rs. 16,68,579 in the preceding year. That the falling-off consequent on the decrease in the number of suits instituted was not larger is due to the general high value of the litigation of the year and to the increase in the number of appeals. The number of documents on which these stamps were affixed was 1,103,574.

The duty and penalties levied on instruments not duly stamped amounted to Rs. 6,615. In the reports of previous years this

source of revenue has been shown with fines. The receipts from duty and penalties and fines were larger in 1881 than in any of the five previous years,* the increase being probably due to greater attention being now than formerly paid to the impounding of unstamped and insufficiently-stamped instruments.

		Rs.
* 1876	...	6,434
1877	...	5,302
1878	...	3,101
1879	...	2,552
1880	...	7,498
1881	...	8,014

Fees paid in respect of the services of amíns amounted to Rs. 1,63,415, against Rs. 1,73,688 in 1880. The decrease is due to the slackness of business in the execution department, and, in a small degree perhaps, to the operation of the High Court's Circular Order No. 23 of 1881, under which certain sales, which would otherwise have been conducted by amíns, were held by Collectors. Fees paid in District and Subordinate Courts for processes other than those executed by amíns amounted to Rs. 3,66,978, against Rs. 3,50,792 in 1880.

Judicial Record Fund receipts of District and Subordinate Courts were Rs. 76,826, against Rs. 72,867 in the previous year. Under the arrangement, which has been recently sanctioned and will come into force during the current year, of collecting copying fees by means of impressed stamps, copies will be furnished at less cost to the public, and there will probably be a considerable falling off in the income of the Judicial Record Fund.

On the expenditure side the entire cost of the High Court has been shown, though perhaps not more than three-fourths of the Court's time is devoted to civil business. The decreased expenditure on process-serving peons is due to the large reductions made in July, 1880. The increased expenditure on amíns is due to their number having been increased in July, 1880, to the appointment in the same month of a peon to attend each amín, and to the grant to each amín, with effect from the 1st September, 1881, of a monthly allowance for the remuneration of drummers. The increased expenditure chargeable to the Judicial Record Fund has been caused by the permanent appointment of additional copyists and by the temporary appointment of a few record-weeders.

The total receipts of District and Subordinate Courts are shown as Rs. 21,31,467, and their expenditure as Rs. 12,64,592, the gain

to Government being Rs. 8,66,875. But to the receipts should perhaps be added the value of the stamps on which pleaders' certificates of practice were engrossed, amounting to over Rs. 25,000 per annum ; and to the expenditure side the contingent charges of the Courts, amounting to nearly Rs. 40,000 a year, and outlay on original works and repairs, which amounted to Rs. 29,039. Roughly speaking, therefore, litigation in District and Subordinate Civil Courts yielded to the Government in 1881 a net profit of 8¼ lakhs of rupees, *minus* pensions and the interest on the capital value of Court-houses.

During the year nearly all Subordinate Courts were carefully inspected by District Judges. The results of the inspections were generally satisfactory.

During the year rules were made and issued regarding the preparation, arrangement and transmission of records, the destruction of records, and several other matters ; and the rules regarding process-fees, amíns and cash accounts were re-issued, with such alterations and additions as a year's experience of their working had shown to be necessary.

The central nazárat system continues to work satisfactorily. In some districts the number of process-servers has been still further reduced.

(*b.*)—*Oudh.*

The income and expenditure of the Civil and Rent Courts are shown below :—

	Income.	Expenditure.
	Rs.	Rs.
Civil	5,38,311	4,17,429
Rent	1,76,127	4,05,231

The large deficit under Rent Courts is nominal only, for the officers whose salaries form part of the expenditure have many duties to perform besides those of Rent Courts. The Lucknow Small Cause Court shows an income of Rs. 19,135 and expenditure of Rs. 16,856.

The number of cases instituted in the several Civil and Rent Courts during the year 1881 was 77,854, being nearly ten thousand

more than in 1880. Figures showing the cases instituted during the two past years in the several classes of Courts are given below :—

	1880.	1881.
Ordinary Civil Courts	38,149	43,777
Small Cause Courts	4,717	5,024
Rent Courts (Act XIX. of 1868)	25,218	29,053

The increase was in every class of Court. The total value of the property concerned in these suits was Rs. 62,78,718.

Ordinary Civil Courts.—The value of the subject-matter of the 43,777 suits instituted in the ordinary Civil Courts was estimated to be Rs. 51,28,863, being rather more than a lakh above the estimated value of the suits instituted in 1880. The increase in the number of suits was chiefly under the head of "verbal contracts."

The number of suits filed in each class of Court is shown below :—

	1880.	1881.
Honorary Assistant Commissioners	3,724	4,196
Sub-Judges and Munsifs	34,356	39,512
District Judges	69	69

Trial of suits.—In addition to the regular suits there were 4,940 miscellaneous cases instituted during the year. There were thus altogether 50,768 suits before the Courts, and the manner in which they were disposed of is shown in the following comparative table :—

	1880.	1881.	Percentage of 1880.	Percentage of 1881.
Transferred ...	8	0	·015	...
Disposed of without trial—				
Plaints rejected or returned,	250	537	·59	1·05
Dismissed for default ...	6,160	7,634	14·4	15·03
Withdrawn with leave ...	1,927	2,672	4·53	5·26
Disposed of without contest—				
Compromised ...	3,401	4,223	7·99	8·31
Decreed on confession ...	5,719	6,441	13·45	12·68
Decreed *ex parte* ...	3,327	4,238	7·82	8·34
Dismissed *ex parte* ...	740	925	1·73	1·83
With contest for plaintiff	10,244	11,828	24·09	23·29
Ditto for defendant ...	5,193	6,489	13·21	12·78
Pending	5,545	5,193	13·03	10·22

Of the contested cases 588 were referred to arbitration, against 461 cases in 1880. Of the total number of cases decided, 5,603 were disposed of by Subordinate Judges under their powers as Small Cause Court Judges.

The average duration of suits was rather longer than in 1880, as shown by the following figures:—

	1880.	1881.
Average duration of contested suits...	61	66
Ditto uncontested	35	38

The lowest average duration was in the Courts of the Honorary Assistant Commissioners. In the Courts of the District Judges, each case, whether contested or not, lasted on an average for five months. In the preceding year the average duration of contested cases before these officers was longer, being 192 days, but uncontested cases were disposed of more rapidly, the average duration being 103 days.

There were 4,440 appeals before the District Judges. In the following statement the figures of the two past years are compared:—

	1880.	1881.	Percentage of 1880.	Percentage of 1881.
Total number of appeals for trial ...	4,066	4,440	0	0
Rejected	43	50	1·1	1·12
Transferred	24	0	·59	0
Dismissed for default	155	116	3·81	2·61
Heard ex parte.				
Confirmed	35	30	·86	·67
Modified	6	8	·19	·18
Reversed	21	13	·51	·29
Remanded	0	4	0	·09
Contested.				
Confirmed	1,937	1,955	47·63	44·
Modified	272	245	6·68	5 51
Reversed	493	507	12·12	11·44
Remanded	258	304	6·34	6 84
Remaining	822	1,208	20·46	27·43

The average duration of appeals was 100·92 days. There were, in addition to these regular appeals, 143 miscellaneous appeals disposed of by the District Judges. The average duration of these appeals was 62·29 days.

In the Judicial Commissioner's Court there were 438 appeals for disposal, being three less than in the preceding year. Of this number 73 were appeals from original decrees and 365 from the decrees of appellate courts.

The following figures show how the appeals were disposed of in 1880 and 1881:—

	1880.	1881.	Percentage of 1880.	Percentage of 1881.
Rejected	92	49	26·36	11·18
Dismissed for default ...	0	2	0	·45
Heard ex parte.				
Confirmed	0	2	0	·45
Modified	1	5	·28	1·14
Reversed	1	4	·28	·91
Contested.				
Confirmed	99	142	28·36	32·41
Modified	15	8	4·30	1·82
Reversed	82	113	23·50	25·80
Remanded	1	1	·28	·23
Pending	58	112	16·61	25·57

In addition to the above there were 89 miscellaneous appeals before the Judicial Commissioner; 79 of these were disposed of and 10 were pending at the commencement of the year.

The number of applications for execution of decree aggregated 22,430, which were disposed of as follows:—

	1880.		1881.	
By transfer	433	2·01	534	2·38
Satisfied in full	8,496	39·60	9,166	40·86
,, in part	3,100	14·45	3,168	14·12
Wholly infructuous	6,515	30·37	6,765	30·16
Pending	2,908	13·57	2,797	12·47

The proportion of decrees satisfied in full was slightly better than in 1880.

The modes in which the decrees were executed are shown below:—

By imprisonment of debtor	187
,, arrest	184
,, sale of movable property	2,111
,, attachment ditto	4,399
,, sale of immovable property	697
Under section 305 or 326 of the Code of Civil Procedure ...	42
By attachment of immovable property	914
,, giving possession of movable property	75
,, giving possession of immovable property	1,526
,, contracts enforced	227
,, partition	3
,, execution otherwise effected	2,512

The amount realised was Rs. 10,25,353, of which amount Rs. 1,29,066 were realised without issue of process.

There were 32 applications for declaration of insolvency, in only three of which was the application granted. The estates of three insolvents remained in the hands of receivers at the close of the year.

Of 51,552 witnesses summoned, 49,505 were detained one day, 1,787 during two days, 190 during three days, 54 during four days, and 16 up to eight days.

The amount realised by process fees, inclusive of receipts of Small Cause Courts, aggregated Rs. 73,969, being Rs. 1,915 less than in 1880. The surplus after paying all charges amounted to Rs. 15,916, against Rs. 16,197, the difference being Rs. 281 only. The income of only two Courts fell short of the expenditure.

The sale commission receipts amounted to Rs. 7,543, leaving a surplus of Rs. 4,175 after the defrayal of all charges.

The number of suits instituted in Small Cause Courts (omiting those disposed of by Sub-Judges in the exercise of Small Cause Court powers) during the past two years were as follows :—

1880	4,707
1881	5,024

The aggregate value of the suits amounted to Rs. 1,76,634, being Rs. 28,836 more than in 1880. Only about 15 per cent. of the suits instituted were claims for more than Rs. 50.

Of 5,188 suits before the Courts, 5,003 were disposed of as under :—

Without trial	391	7·53
Without contest—		
Compromised	357	6·88
On confession	1,303	25·11
Ex parte	1,107	21·33
Dismissed	19	·36
By arbitration	2	·03
With contest—		
For plaintiff	1,288	24·82
For defendant	536	10·33
Pen ding	185	3·56

There were 253 miscellaneous cases before the Courts, of which 115, or 45 per cent., were disposed of without trial, 12 without contest, and 125, or 49 per cent., with contest.

Inclusive of cases pending from 1880 and transfers, there were 4,424 applications for execution of decrees before the Courts, which were disposed of as follows :—

	Number.	Percentage.
By transfer	330	7·45
Satisfied in full	1,236	27·93
Satisfied in part	1,156	26·13
Wholly infructuous	1,627	36·77
Pending	75	1·69
In which debtor imprisoned	86	1·94
Ditto arrested	154	3·48
Movable property sold	149	3·36
Ditto attached	109	2·46
Execution effected otherwise	1,685	38·08
		Rs.
Amount realized with issue of process		27,945
Ditto without ditto		19,144

Of 3,325 witnesses summoned, nine were kept two days, four for three days, the remainder being dismissed on the same day that they appeared.

Rent Courts.—The number of suits filed under Act XIX. of 1868 during 1881 was 29,053, against 25,218 in 1880; the increase was chiefly in suits for arrears of rent and ejectment or recovery of possession.

The value of suits filed aggregated Rs. 9,73,221, being Rs. 49,186 in excess of the figures for 1880. The proportion of cases in which the subject-matter of the suit was above the value of Rs. 50 was but little over 13 per cent.

There were 31,352 suits before the Courts for disposal against 26,758 in 1880, and the following statement shows how they were disposed of in both years:—

	1880.		1881.	
Without trial.				
Rejected	92	·34	325	1·03
Dismissed	2,777	10·37	3,260	10·39
Withdrawn	849	3·17	958	3·05

	1880.		1881.	
Without contest.				
Compromised	1,169	4·36	1,337	4·26
Decreed on confession	2,767	10·34	3,921	12·50
Decreed *ex parte*	3,771	14·09	4,629	14·76
Dismissed *ex parte*	897	3·35	1,099	3·50
By arbitration.				
For plaintiff	84	·31	81	·35
For defendant			15	·04
With contest.				
For plaintiff	8,760	32·73	9,753	31·10
For defendant	4,434	16 57	4,658	14·85
Pending	1,241	4·64	1,316	4·19

Besides the foregoing suits there were 11,966 miscellaneous cases before the Courts, of which 5,904, or 49·33 per cent., were contested; 1,699, or 14·2 per cent., were struck off without trial; 1,000, or 8·35 per cent., were compromised; 3,080, or 25·73, were decided without contest, and 15 were referred to arbitration.

There were 2,649 appeals before the Courts, which were thus disposed of:—26 summarily rejected, 116 dismissed, 67 confirmed, 27 modified, reversed or remanded. Of 2,163 disposed of with contest, 1,336, or 61·76 per cent., were confirmed; 234, or 10·82 per cent., were modified; 391, or 18·06 per cent., were reversed, and 202, or 9·33 per cent., were remanded, leaving 250 appeals pending. The average duration was 29 days in Collectors' Courts and 61 days in Commissioners' Courts. Of 380 appeals that came before the Judicial Commissioner, 153 were summarily rejected, 2 were dismissed, and 11 decided *ex parte*. One hundred and fifty-four appeals were contested, of which 88 were confirmed and 66 reversed, modified or remanded; 60 appeals remained pending. The average duration was 50 days.

In addition to the foregoing, 189 miscellaneous appeals came before Collectors and Commissioners, of which 150 were contested. In 81 of these cases the orders were confirmed, in 13 modified, and in 40 reversed, and 16 cases were remanded. Only 11 appeals remained pending. Thirty-two miscellaneous appeals came before the Judicial Commissioner, of which 13 were summarily rejected. There were 14 contested appeals, in 8 of which the orders were confirmed, in 2 modified, and in 4 reversed.

The number of applications for execution of decrees that came before the Courts fell from 13,174 in 1880 to 12,642. The following statement shows how they were disposed of in both years:—

	1880.		1881.	
By transfer	79	·59	42	·33
Satisfaction in full	5,884	44·66	5,562	43·99
Ditto in part	1,889	14·33	1,946	15·39
Wholly infructuous	3,662	27·79	3,590	28·39
Pending	1,660	12·60	1,502	11·88
Amount realised.				
With issue of process	...	...	250,909	...
Without ditto	...	...	18,952	...
On which debtor was imprisoned ...	1,706	12·94	215	1·70
Ditto ditto arrested	...	...	180	1·42
On which movable property sold ...	2,517	19·10	5	·03
Ditto ditto attached ...	8,358	63·44	2,703	21·38
On which immovable property was sold ...	1,417	10·75	647	5·11
Ditto ditto ditto was dealt with under sections 305, 322, 326, Act X. of 1877.	...	...	67	·53
Ditto ditto ditto was attached...	2,046	15·53	679	5·37
Ditto possession given of movables ...	...	...	4	·03
Ditto ditto immovables ...	185	1·40	176	1·32
Contract enforced	...	...	4	·03
Partition effected	...	...	...	...
Execution otherwise effected	5,699	43·25	1,861	14·72

Of 16,215 witnesses summoned, 232 were detained during two days, 94 during three days, and 36 from four to six days, the remainder having been dismissed on the day on which they appeared.

After paying all charges there was a surplus in the Process Fee Fund of Rs. 19,686, the receipts having amounted to Rs. 61,553. The receipts of the Sale Commission Fund amounted to Rs. 3,515, as in 1880; the expenditure was Rs. 1,247, leaving a surplus of Rs. 2,268.

Judicial Commissioner's Court.—In addition to the appeals that have been already noticed, 22 references were made to this Court under section 617 of the Civil Procedure Code; 528 cases were called for under section 622 of the Code, and in 25 of these the orders of the lower Courts were modified or reversed. Thirty-three applications were made to the Judicial Commissioner for review of judgment. Two divorce cases were tried and 60 other miscellaneous applications were disposed of.

7.—Infanticide.

(a.)—*North-Western Provinces.*

The chief features of the year, so far as infanticide statistics are concerned, were—

(1) The very high birth-rate, extending all over the province, 52·18 per mille.

(2) The very good average of girl birth, 47·74, against 52·26 for boys.

(3) The high death-rate among infants, 20·94.

(4) The equal proportion in which infants of both sexes have died, boys 20·96, girls 20·92.

In the 30 districts of the North-Western Provinces in which the Act is in force at the close of 1880-81 there were 2,520 proclaimed villages. From 1st April, 1881, 152 villages were exempted in the following districts:—

Sahâranpur	...	14	Cawnpore	...	... 31
Meerut ...	...	20	Fatehpur	...	... 7
Bulandshahr	...	5	Bânda	...	... 15
Agra	...	6	Basti	...	... 7
Mainpuri	...	10	Azamgarh	...	... 15
Moradabad	...	2	Mirzapur	...	... 2
Budaun ...	...	4		Total	... 152
Bareilly	...	14			

leaving 2,368 villages under surveillance. There were also exemptions of 321 families in five districts. Allowing for these, the year commenced with a population of 285,860, and closed with one of 291,175.

The following table shows the chief statistics of the year compared with the averages of the previous six years and with English rates :—

	England.	North-Western Provinces.	
		Average of six years, 1875-81.	Provincial rates for the year.
Percentage of births of boys to total births	50·68	51·39	52·26
Ditto of girls ditto	49·32	48·61	47·74

		England.	North-Western Provinces.	
			Average of six years, 1875-81.	Provincial rates for the year.
Percentage	of deaths of boys under one year to total deaths under one year.	55·38	51·18	52·32
Ditto	of deaths of girls under one year to total deaths under one year.	44·62	48·82	47·68
Ditto	of deaths under one year to births of the year,	15·78	24·14	20·94
Ditto	of deaths of male infants to male births ...	17·24	20 02	20·96
Ditto	of deaths of female infants to female births,	14·27	24·27	20·92
Ditto	of deaths of boys between one and 12 to boy population of that age.	1·59	3·61	3·28
Ditto	of deaths of girls between one and 12 to girl population of that age.	1·63	6·52	5·65

These figures show—

1st—That some reliance may be placed on the returns, inasmuch as the figures for the year very little from the average of the previous six years.

2nd—That with the exception of the higher mortality among children, which is perhaps inevitable under existing circumstances in this country, the figures approximate fairly to the English rates.

3rd—That though the death-rate of children is high, yet over a period of seven years, the mortality among infants is equally divided between the sexes, and among older children it is persistently against girls.

The births were equally distributed throughout the year; there was no preponderance in either half-year, as was the case in 1880-81.

The birth-rate was very high, ranging from 36·42 in Gházipur (in Pilibhít it was only 31·67, but the numbers are very small) to 77·82 in Aligarh. The western districts were far more prolific than the eastern. In Cawnpore the rate fell to 51·64, and from thence eastwards it gradually fell to 36·42 in Gházipur.

Test A.—Percentage of boy and girl births on total births.

	England.	North-Western Provinces.	
		Average of six years, 1875-81.	Provincial rate for the year.
Boys	50·68	51·39	52·26
Girls	49·32	48·61	47·74

The rates this year were 4·52 per cent. to the prejudice of girls. The average for the previous six years is 2·78 per cent. to their prejudice. The English variation is 1·36. These figures are satisfactory, and afford no ground for supposing that girl births are extensively concealed. In almost all districts where the proclaimed population is large, the rates approximate with the provincial rate: it is only in districts where the proclaimed population is very small that the rate falls off, *viz.*, Pilibhít, Benares, Allahabad. Mainpuri alone of the big districts shows a low girl birth-rate of 44·81.

Test B.—Percentage of boy and girl deaths (under one year) on total deaths (under one year).

	England.	North-Western Provinces.	
		Average of six years, 1875-81.	Provincial rate for the year.
Boys	55·38	5·118	52·32
Girls	44·62	48·61	47·68

The proportion in which infants of each sex died differs but slightly from the average of six years, and, curiously enough, corresponds almost precisely with the proportion in which they were born, the variation being 4·64 in favour of girls. The English variation is 10·76.

The following districts show a low percentage of girl deaths combined with a very general high birth-rate :—

	General birth-rate.	*Girl death-rate.*
Meerut	64·70	42·40
Aligarh	77·82	40·68
Bijnor	44·61	41·24
Budaun	63·69	43·42
Bareilly	54·38	38·30
Shâhjahânpur	72·76	41·18

On the other hand, the following districts show a high girl death-rate combined with a comparatively low general birth-rate.

	General birth-rate.	Girl death-rate.
Jaunpur	37·19	50·41
Gházipur	36·42	54·06

Last year the Gházipur girl death-rate was suspiciously low, but the variation may be due to natural causes.

Test C.—Death of infants of both sexes on births.

	England.	North-Western Provinces.	
		Agerage of six years, 1875-81.	Provincial rate for the year.
Percentage of deaths of infants under one year to births of the year.	15·78	24·14	20·94

The infantile mortality was high during the year under report, but it contrasts favorably with the average of the six preceding years, 1875-81. Generally speaking, it was higher in the eastern districts, where the birth-rate was low, than in the western. Some of the former suffered from an epidemic of fever during the latter portion of 1881, which may account for this.

Test D.—Percentage of deaths of each sex to births of that sex.

	England.	North-Western Provinces.	
		Average of six years, 1875-81.	Provincial rate for the year.
Male	17·24	24·02	20·96
Female	14·27	24·27	20·92

Though the death-rate is high the proportion in the sexes has been equal, and this is the case on the average of the previous six years. These statistics point to the conclusion that, taking one year with another, girl and boy infants do die in this country in about equal numbers.

In the following districts only is there any great divergence between the deaths of sexes to prejudice of girls :—

	Boys.	Girls.
Mainpuri	20·81	28·44
Gházipur	19·76	27·77

The proclaimed population in Gházipur however is small.

In 12 districts the rate is in favor of girls, but, with the exception of the following, in no district is the variation so great as to call for remark :—

	Boys.	Girls.	Variation in favor of girls.
Bijnor	15·74	11·08	4·66
Budaun	26·12	21·97	4·15
Bareilly	25·21	17 64	7·57
Sháhjhánpur	25·64	21·00	4·64
Hamírpur	18·00	14 15	3·85
Basti	28·41	22·42	5·99

The districts noted in last year's report as having an extraordinarily low infant girl death-rate are not so distinguished this year.

Test E.—Death-rate of children between one and 12 years calculated on the population of each sex of that age.

	England.	North-Western Provinces.	
		Average of six years, 1875-81.	Provincial rate for the year.
Boys	1·59	3·61	3·28
Girls	1·63	6·52	5·65

The general death-rate on population of this age for the year is 4·17, or slightly lower than it was in the previous year. This rate gradually rose from the year 1875-76, culminated in 1879-80, and began to fall in 1880-81. The percentage of deaths of boys was 3·28 and of girls 5·65, showing a variation to the prejudice of girls of 2·37 per cent. as compared with 1·94 in the previous year.

The following districts exhibit an extraordinary high girl death-rate :—

	Boys.	Girls.	Variation.
1. Meerut	2·65	5·05	3·60
2. Aligarh	2·92	6·28	3·36
3. Agra	2·97	6·05	3·08
4. Bijnor	3·51	8·27	4·76
5. Moradabad	2·94	6·07	3·13
6. Sháhjahánpur	2·06	6·05	3·99
7. Bánda	1·94	6·02	4·08
8. Azamgarh	4·04	9·19	5·15
9. Mirzapur	2·02	7·26	5·24

Of these districts Nos. 1, 2, 4, 6 and 8 were remarked on last year for this peculiarity.

Percentage of girls on population between 1 *and* 12.—The percentage of girls on population of this period of life had steadily risen from 28·06 in 1875-76 to 35·79 in 1880-81. It is satisfactory to find that this steady increase is maintained, and that the percentage of the year under report is 37·14.

Juvenile mortality.—The following table gives the child mortality for each year of life during the year as compared with the previous year. The returns of former years were to a great extent rendered worthless by the frequent changes made in ageing of children :—

Age.	*Deaths of boys on boy population.*		*Deaths of girls on girl population.*	
	1880-81.	1881-82.	1880-81.	1881-82.
Under one year	19·49	21·09	19·19	21·14
1 year	13 76	11·68	14·08	12·70
2 years	8 07	7·01	10·24	10·18
3 ,, ...	4·17	4·59	6·35	7·60
4 ,, ...	2·96	3 11	4·29	6·08
5 ,, ...	2 42	2·31	2·53	3·57
6 ,, ...	1·89	2 18	2·52	2·44
7 ,, ...	1 22	1 86	1·86	2·14
8 ,, ...	1·35	1 06	1·94	1·83
9 ,, ...	1·18	·91	·92	1·15
10 ,, ...	1·17	1·13	1·73	1·41
11 ,, ...	1·20	1·27	4·07	3·49

As far as this comparison, limited to the only two years of which the data are fairly trustworthy, goes, it appears that—

(1) There is a steady decrease in the mortality of both sexes year by year.

(2) That the viability of boys seems to be established in the 4th year and that of girls in the 5th year.

(3) After those years the mortality is trifling.

There is, however, an extraordinary recurrence of mortality among girls in the 11th year; this may be accidental, but until we have further experience derived from thoroughly trustworthy data it would be unsafe to hazard an opinion as to its cause.

The following table shows the minor population for the three periods, under one year, one to four years, and five to eleven years :—

	Boys.	Girls.	Percentage of girls.
Under one year	7,749	7,046	47·62
One to four years	16,159	12,950	44·48
Five to eleven years	32,877	16,728	33·72

Natural increase.—The subjoined statement gives the natural increase in the girl population during the year :—

	Boys.	Girls.	Percentage of girls.
Initial population	48,796	29,589	37·74
Add births	7,797	7,120	
	56,593	36,709	
Deduct deaths	3,217	3,120	
	53,376	33,589	38·62
		Increase	·88

The increase has occurred in every district but three, Bánda, Mirzapur and Benares. It was greatest in the following districts :—

Meerut	1·46
Bulandshahr	2·34
Fatehgarh	2·58
Budaún	1·61

The percentage of girls on minor population has risen steadily from 30·86 in 1873-74 to 37·15 in 1880-81 and to 38·62 in 1881-82.

Arrivals and removals.—The following table shows that arrivals were much in excess of removals :—

	Men.	Women.	Boys.		Girls.		Total.
			Under 1 year.	1 and 12 years.	Under 1 year.	1 and 12 years.	
Arrival ...	3,233	12,642	263	4,203	278	3,081	23,700
Removals...	3,571	10,844	311	3,963	352	2,992	22,033
	—338	+1,798	—48	+240	—74	+89	=1,667 arrivals in excess.

Last year the removals were much in excess, and this probably explains the excess of arrivals during 1881-82. The number of arrivals and removals of pregnant women was 1,157.

Midwives.—Consequent on exemptions of villages and families the number of midwives was reduced by 504. They number now 5,035.

Inquests and judicial action.—The number of inquests held was 708 in excess of last year. The deaths of female infants under one year were 1,490 only : the remaining inquests, 1,086, were held on boys dying under six months of age and girls over one year, the circumstances of whose death appeared suspicious to the police. A very large number were forwarded for *post-mortem* examination, but in only thirteen cases did there appear to be any ground for suspicion: in these thirteen cases again, on further examination, suspicion was dispelled in seven, and only six were sent up for trial, while only one person was prosecuted to conviction.

Lesser punishments.—Apparently chaukidars and midwives have learnt their duties and responsibilities fairly well, for only 103 of the former and six of the latter were punished this year, against 413 and 20 in 1875-76. About the same number of heads of families have been punished yearly for the past six years. The number, 291, is not large considering there are 108,419 families registered.

Establishment and rates.—There was a reduction of 9 head-constables and an addition of 1 chaukidar, making the present establishment 4 sub-inspectors, 101 head-constables (including clerks) and 27 chaukidars. The highest rate in specially guilty villages was 13 annas per annum and the lowest 4 annas. In ordinarily guilty villages the highest rate was 8 annas and the lowest 3 annas. In Bareilly it was the same for both.

(*b.*)—*Oudh.*

Hitherto operations in Oudh have been conducted not so much with the view of bringing repressive measures to bear upon the clans that are presumed to practise infanticide as of collecting trustworthy statistics regarding the prevalence of the crime, upon which action might be taken. The instructions issued at the close of 1881 did not change the character of the measures to be taken ; and the results of the recent provincial census have now been made available for the use of the police in dealing with the crime. The census has shown how inaccurate were the statistics formerly

furnished ; and as those now given appear to be in the main accurate, they will form a point of departure in any measures that may be taken in the future.

The results of the operations during the year 1881-82 seem to have been briefly as follows. At the commencement of the year there were 207 villages under surveillance, and in these villages as well as in 249 new villages a census was taken. There were 17 specially guilty villages under surveillance during the year. The census has shown a girl percentage for the old villages of 39·68, for the new of 45·67, and for the specially guilty of 39·40.

The Deputy Inspector-General infers from the census of the new villages that infanticide is pretty widely practised in Oudh, and is most rife in Sitapur and Rae Bareli ; that it is not only in infancy that Rájput girls die under suspicious circumstances ; and that a good deal of deception is practised by reporting girl births as boy births, in order to divert suspicion in case of the infants' deaths, and by showing borrowed children in place of children that have died. It would seem therefore that there is ground for continuing the operations which are now taken, and it may be a question whether measures of a more repressive nature will not shortly be required.

8.—Litigation to which Government was a Party.

(a.)—*North-Western Provinces.*

Numerical results.—There were 281 cases for disposal. These and their results are shown in the following table :—

1	2	3	4	5	6	7	8
	State plaintiff or appellant.	State defendant or respondent.	Total.	For the State	Against the State.	Pending.	Percentage in favour of the State.
I.—Government.							
(a) Court of first instance ...	18	38	56	34	10	12	77
(b) On regular appeal ...	2	8	10	5	1	4	83
(c) On special appeal ...	1	1	2	2	...	...	100
Total ...	21	47	68	41	11	16	79

1	2	3	4	5	6	7	8
	State plaintiff or appellant.	State defendant or respondent.	Total.	For the State.	Against the State.	Pending.	Percentage in favor of the State.
II.—Municipalities.							
(a) Court of first instance ...	5	6	11	5	...	6	100
(b) On regular appeal ...	...	3	3	2	...	1	100
(c) On special appeal ...	...	5	5	1	...	4	100
Total ...	5	14	19	8	...	11	100
III.—Court of Wards.							
(a) Court of first instance ...	120	32	152	116	14	22	89
(b) On regular appeal ...	8	29	37	26	4	7	87
(c) On special appeal ...	..	5	5	2	...	3	100
Total ...	128	66	194	144	18	32	89
GRAND TOTAL ...	154	127	281	193	29	59	87

Government was engaged in 68 cases against 58 in 1879-80, and won 79 per cent. of its litigation, against 71 per cent. in 1879-80 and 97 per cent. in 1878-79.

Municipalities were concerned in 19 cases, and from the figures given in the margin, it will be seen that their litigation has been decreasing steadily during the last four years. They have also been remarkably fortunate, having won all the cases that were decided. These extremely successful results are probably to some extent accidental; otherwise they would give rise to the suspicion that municipalities were over-cautious in asserting and maintaining their rights. The percentage of success in the previous year was 94 per cent., and in 1878-79, 68 per cent. This steady decrease in the quantity of litigation, accompanied by an improvement in the percentage of success, shows that more care is being taken to avoid

1877-78.	1878-79.	1879-80.	1880-81.
33	30	24	19

the illegal action which has not unfrequently furnished the cause of action in suits against municipalities; and as long as there is no reason to suppose that the caution exercised is excessive, the improvement is a matter for congratulation. In such cases the responsibility for failure of litigation must rest entirely with the municipalities themselves, as the cases, unlike those in which the municipality is the plaintiff, do not come before the Board in its capacity of Legal Remembrancer till they have been actually instituted.

The Court of Wards' litigation hardly varied, having only decreased from 200 cases in 1879-80 to 194 cases in 1880-81. The percentage of success for the latter year was 89, as compared with 83 per cent. in 1879-80. Of the 194 cases, 98 (in 89 of which the Court of Wards was plaintiff) pertained to the Awa estate, and were for the most part suits for the recovery of sums due on indigo bonds. The Manager anticipated some increase in the litigation of this estate during this and next year. As a matter of fact, the number of cases rose from 80 in 1879-80 to 98 in 1880-81, but these include a number of suits pending from the previous year. The number of Court of Wards' cases pending at the close of the year was 32, against 62 in 1879-80.

Taking the whole of the litigation in which the Government was engaged in its three capacities, there were 281 cases for disposal, compared with 282 in 1879-80, and of these 222 were decided and 59 left pending. The number of pending cases in the previous year was 93. Of the 222 decided cases the State won 193, or 87 per cent., as against 82 per cent. in 1879-80 and 92 in 1878-79.

The percentage of success in the Courts of first instance and appellate Courts was :—

	1879-80.	1880-81.
Courts of first instance	84	87
Regular appeal	82	87
Special appeal	58	100

Classification.—As usual most of the suits were to recover money due under contract, or to recover real property with or without mesne profits.

Financial.—The financial results of the year's litigation are given in the table below :—

	Claimed by the State.				Claimed against the State.			
	Government.	Municipalities.	Court of Wards.	Total.	Government.	Municipalities.	Court of Wards.	Total.
Claimed ...	57,758	1,049	82,966	1,41,773	3,79,057	2,310	3,59,338	7,40,705
Decreed ...	31,901	838	67,164	99,903	4,477	...	13,973	18,450
Dismissed ...	10,013	138	5,455	15,606	2,80,225	831	1,75,767	4,56,823
Pending ...	15,844	73	10,347	26,264	94,355	1,479	1,69,598	2,65,432

Of the claims made by the State and decided during the year, 87 per cent. were decreed in its favour, against 92 per cent. in 1879-80.

In suits instituted against the State the plaintiffs obtained decrees for 4 per cent. of their claims that were decided during the year, against 10 per cent. in 1879-80.

Satisfaction of claims decreed in favour of and against the State.—The progress in recovering the State's claims decreed during the year is shown below. These figures contrast unfavourably with those showing the percentage of claims decreed, which have just been noticed ; but the large proportion of unrecovered decrees in the first line is due to the results of one or two heavy suits, in which it was necessary to sue embarrassed defendants with a view of throwing away no chance of recovering the money due from them :—

	Decreed.	Recovered.	Remitted.	Balance.		
				Recoverable.	Doubtful.	Total.
Government	26,062	4,568	...	21,488	6	21,494
Municipalities ...	838	68	...	770	...	770
Court of Wards ...	32,329	18,075	...	10,382	3,872	14,254
Total ...	59,229	22,711	...	32,640	3,878	36,518

Government realized 17 per cent., municipalities 8 per cent., and the Court of Wards 56 per cent, of the sums decreed in their favour, as compared with 20, 75 and 11 per cent. in 1879-80.

The following sums were decreed against the State during the year:—

	Rs.
Government	4,477
Municipalities	...
Court of Wards	13,973
Total ...	18,450

The amount due by Government has been paid with the exception of Rs. 414, of which Rs. 147 are pending result of appeal, and Rs. 267 have have since been disbursed. In addition to the Rs. 13,973 due by the Court of Wards, there were outstanding against it on the 30th September, 1880, Rs. 21,044, making in all Rs. 35,017. Of this, Rs. 7,807 have been paid, leaving a balance of Rs. 27,210, of which Rs. 26,304 are due from estates which have no funds at present to meet the demand. The claims will be paid off as funds become available.

Cost of litigation and progress in realizing the costs awarded during the year in favour of the State.—These statistics are given in the subjoined table :—

	Costs disbursed.			Costs awarded in favour of the State.	Recovered.	Balance.	Analysis of balance.	
	In prosecution and defence of cases.	On account of opponent's costs.	Total.				Recoverable.	Doubtful.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Government ...	6,879	709	7,588	5,311	1,672	3,639	3,138	501
Municipalities ...	524	...	524	265	121	144	144	...
Court of Wards ...	15,999	749	16,748	14,130	1,724	12,406	9,926	2,480
Total ...	23,402	1,458	24,860	19,706	3,517	16,189	13,208	2,981

No comparison can be made between the figures shown in columns 2 and 5 of this table, as the former column includes expenditure in cases decided previous to and in the undecided cases of the year under report, which is not accounted for in the latter column. Again, column 5 shows costs which may or may not have been disbursed during the year under report. Measures are being taken to have the unrecovered costs carefully scrutinized and their recovery hastened.

The progress in realizing outstandings, including interest, is shown below:—

	Total outstandings.	Recovered.	*Percentage of recoveries.*		Remitted.	Balance.	*Analysis of balance.*	
			1879-80.	1880-81.			Recoverable.	Doubtful.
	Rs.	Rs.			Rs.	Rs.	Rs.	Rs.
I.—Government.								
Claims ...	11,992	1,204	64	13	2,850	7,938	6,905	1,033
Costs ...	5,976	976	63	19	746	4,254	837	3,417
Total ...	17,968	2,180	64	15	3,596	12,192	7,742	4,450
II.—Municipalities.								
Claims ...	2,454	...	...	...	2,198	256	256	...
Costs ...	579	30	9	18	417	132	71	61
Total ...	3,033	30	1	7	2,615	388	327	61
III.—Court of Wards.								
Claims ...	1,11,555	6,956	14	7	10,525	94,074	73,176	20,898
Costs ...	26,661	2,510	13	10	917	23,234	14,679	8,555
Total ...	1,38,216	9,466	14	7	11,442	1,17,308	87,855	29,453

The net financial result of the year's litigation was as follows :—

	Rs.	Rs.
Claims recovered by the State	22,711	
Costs ditto ditto	3,517	
Outstandings ditto ditto	11,676	37,904
Claims paid by the State	11,870	
Costs ditto ditto	24,860	
Balance in favour of the State		36,730
		1,174

Government dues in pauper suits.—Including the outstandings on the 30th September, 1880, the total dues for the year were Rs. 35,728, out of which Rs. 4,520 were realised and Rs. 8,697 remitted, leaving a balance of Rs. 25,511 at the close of the year. The percentage of recoveries on realizable sums was 17 per cent., against 50 per cent. in 1879-80 and 29 per cent. in 1878-79.

(*b.*)—*Oudh.*

Numerical results.—There were 44 cases for disposal, against 30 in 1879-80 and 46 in 1878-79. The results are shown below :—

	State plaintiff or appellant.	State defendant or respondent.	Total.	For the State.	Against the State.	Pending.	Percentage in favor of the State.
I.—Government.							
(*a.*) Court of first instance ...	20	16	36	23	2	11	92
(*b.*) On regular appeal ...	...	3	3	3	...	...	100
(*c.*) On special appeal ...	1	1	2	1	1	...	50
Total ...	21	20	41	27	3	11	90
II.—Municipalities.							
(*a.*) Court of first instance ...	...	1	1	...	...	1	...
(*b.*) On regular appeal ..	1	...	1	...	1	...	
(*c.*) On special appeal ...	...	1	1	1	...	...	100
Total ...	1	2	3	1	1	1	50
GRAND TOTAL ...	22	22	44	28	4	12	87

The State won 87 per cent. of the cases decided, as against 73 per cent. in 1879-80. The 20 cases filed by Government were chiefly suits for the recovery of rent balances on *nazul* land lying within municipal limits and not assessed to land-revenue.

The 16 cases instituted against Government in the Courts of first instance were mostly suits in which the plaintiffs sued to establish their rights to certain nazúl lands.

Financial results.—These are given below :—

	Claim by the State.		*Claim against the State*	
	Government.	Municipalities.	Government.	Municipalities.
	Rs.		Rs.	Rs.
Claimed	20,141	...	2,75,942	58
Decreed	1,832	...	1,297	8
Dismissed	...	...	3,808	40
Pending	18,309	...	2,70,837	10

Satisfaction of claims decreed for and against the State.—Of the Rs. 1,832 decreed in favor of the State, Rs. 1,008 were realised, leaving a balance of Rs. 824, Rs. 723 of which are recoverable. Of the Rs. 1,305 decreed against it all but Rs. 8 has been paid.

Cost of litigation.—This is shown in the subjoined table :—

	Cost disbursed.			Costs awarded in favor of the State.	Recovered.	Balance.	*Analysis of balance.*	
	In prosecution and defence of cases.	On account of opponents' costs.	Total.				Recoverable.	Doubtful.
	Rs.		Rs.	Rs.	Rs.	Rs.	Rs.	
Government ...	4,784	...	4,784	351	261	90	90	...
Municipalities ...	41	...	41	7	7	...	...	...
Total ...	4,825	...	4,825	358	268	90	90	...

Including interest, the outstandings on the 30th September, 1880, were Rs. 8,304, out of which Rs. 2,747 were recovered, leaving a balance of Rs. 5,557, nearly all of which is recoverable.

The net financial result of the year's litigation was as follows :—

	Rs.	Rs.
Claims recovered by the State	1,008	
Cost ditto ditto	268	
Outstanding ditto ditto	2,747	
		4,023
Claims paid by the State	1,297	
Cost ditto ditto	4,825	
		6,122
Loss to the State		2,099

Government dues in pauper suits.—Out of a demand of Rs. 9,002, Rs. 3,100 were recovered and Rs. 1,755 remitted, leaving a balance of Rs. 4,147. The percentage of recoveries on the realizable demand was 43 per cent., against 36 per cent. in 1879-80.

Court of Wards.—Court of Wards' estates in Oudh were engaged in 317 original suits and appeals, valued at Rs 2,94,083. In the previous year there were 546 suits, valued at Rs. 3,06,974.

The estates were plaintiff in 159 cases, valued at Rs. 1,36,259, and defendant in 158, valued at Rs. 1,57,823. The following table shows the result :—

Courts.	Estates plaintiff or appellant.	Estates defendant or respondent.	Total.	Decided		Pending.
				Against estate.	For estate.	
I. Court of first instance ...	140	126	266	157	28	81
II. Appellate court ...	21	28	49	16	8	25
III. Special appellate court ...	...	2	2	1	...	1
Total ...	161	156	317	174	36	107

The estates thus gained 83 per cent. of the total number of cases decided.

In suits in which they were originally plaintiff they were successful in 89 per cent. of the number decided, and in suits instituted against them they gained 77 per cent.

The majority of the suits were for decrees for declaratory rights to, or to recover possession of, land.

The following return shows the progress made in recovering the amount of claims and costs decreed to estates :—

Particulars.	Due	Recovered.	Remitted.	Disallowed in appeal.	Balance.		
					Recoverable.	Irrecoverable.	Doubtful
	Rs. a p	Rs a. p	Rs a p	Rs a p	Rs. a. p	Rs a p.	Rs a. p
Claims decreed in previous year.	50,471 6 0	23,849 12 11	371 4 0	...	11,867 2 0	4,418 2 8	9,962 0 5
Costs decreed in previous year.	8,960 7 5	3,534 9 8	53 3 0	20 15 6	3,262 15 1	889 13 9	1,192 14 0
Claims decreed during the year.	4,248 7 8	1,582 13 6	...	..	2,665 10 2	...	...
Costs decreed during the year.	3,975 3 6	550 9 2	41 10 9	...	3,342 11 7	17 5 6	22 14 0
Total ..	67,655 8 7	29,517 13 3	475 1 9	20 15 6	21,138 6 10	5,325 5 11	11,177 13 4

The collections were thus 44 per cent. of the amount due. The recoverable balance is about 56 per cent. of the total balance.

9.—Registration.

The estimates and receipts of the Registration Department for the year under report were as follows :—

	N.-W. P.	Oudh.
	Rs.	Rs
Estimates	2,80,660	79,900
Actuals	2,58,178	82,787

Compared with the returns for 1880-81 there was in 1881-82 a falling off of the receipts in the North-Western Provinces, and a slight increase in Oudh. The North-Western Provinces receipts in the latter year were, however, higher than in 1879-80. The total expenditure in 1881-82 was Rs. 1,86,877, or Rs. 4,199 less than the expenditure of the previous year ; but the actual difference was less than would appear from those figures, for from the expenditure of the previous year should be deducted Rs. 1,612, contributed after the close of the year by the Kapúrthala estate towards the cost of the extra establishment specially entertained for the registration of cases granted by the estate, and to the expenditure of 1881-82 must be added that of the Amaniganj sub-registrarship

(Fyzabad), the accounts relating to which were not received in time for inclusion in the report.

The total number of documents registered in 1881-82 was 184,277, while in the previous year it was 199,492, the falling off in 1881-82 being most marked in Oudh. In the North-Western Provinces the decrease took place chiefly under the following heads :—

Compulsory registrations.

		Decrease.
(1)	Instruments of sale of immovable property over Rs. 100 in value ...	1,317
(2)	Instruments of mortgage of immovable property over Rs. 100 in value	2,157

Optional registrations

(1)	Instruments of sale of immovable property under Rs. 100 in value ...	887
(2)	Instruments of mortgage of immovable property under Rs. 100 in value	2,255

In Oudh there was a great decrease under term-leases, *viz.*, 10,420, which was due to the completion of the registration of the long-term leases granted in the Kapúrthala estates. Under no head, optional or compulsory, was there any noticeable increase in the North-Western Provinces, while in Oudh the largest increase, namely, 601, was under "other documents registered under section 18, clause (*f*)," of the Act.

The total number of registered sales of immovable property in 1881-82 was 36,751, and of mortgages 70,577, the numbers in the previous year having been 39,014 and 74,184 respectively. Under both heads there was an increase in Oudh and a decrease in the North-Western Provinces. But sales were much more numerous in proportion to population in the North-Western Provinces than in Oudh, and on the other hand mortgages of small value were relatively more numerous in Oudh.

In the North-Western Provinces sales of immovable property over Rs. 100 in value decreased in 17 and increased in eight registration districts. The increase was nowhere large, while the decrease was greatest in Moradabad, Mainpuri, Gházipur, Gorakhpur, Azamgarh, and Agra. Mortgages of immovable property of the value of Rs. 100 and upwards decreased in 16 and increased in nine registration districts. The increase was chiefly in Cawnpore, Jaunpur, Bánda, Jalaun, and Jhánsi, and the decrease in Agra, Aligarh,

Moradabad, Sháhjahánpur, Meerut, Saháranpur, Gházipur, Azamgarh, and Gorakhpur. Sales decreased and mortgages increased in Cawnpore, Bánda, Jaunpur, and Benares, while sales increased and mortgages decreased in Meerut, Aligarh, Bareilly, and the Family Domains of the Mahárája of Benares. None, however, of the conflicting variations were striking or call for special explanation. In Oudh sales of immovable property over Rs. 100 in value increased in seven and decreased in five districts, and mortgages increased in ten and decreased in two districts, the increase in mortgages being greatest in Unao, Sultanpur and Hardoi. Unao and Hardoi, however, show a decrease in sales, and Bara Banki is the only district which shows a decrease in both sales and mortgages. In Oudh, as in the North-Western Provinces, the fluctuations were generally unimportant.

Perpetual leases rose in number from 1,138 to 1,413, the largest increase being in Allahabad, Benares, and Bara Banki. These leases are generally of house property and are rarely agricultural. Term-leases above one year show in the North-Western Provinces an increase of 504. Most of these leases were, as in the previous year, executed in Meerut, Saháranpur, Agra, Moradabad and Bareilly. The Registrar attributes the increase in Meerut to the landlords' fear of the tenants acquiring occupancy rights. But as increase was slight and common to a few districts only, it seems very doubtful whether that cause, if it exists in any district, is general in its operation.

The principal general causes assigned by the local registration officers for increase in compulsory registration within their districts are—(1) the comparatively unfavourable nature of the season in some districts where the crops were poor and the people had in consequence to borrow money; (2) the action of the rules framed by the Government under section 320, Civil Procedure Code, regarding the sale of ancestral property in execution of decrees; and (3) the increasing popularity of registration, owing to the extended knowledge of the benefits which it confers, and the facilities now afforded to the public for having documents registered. The causes assigned for decrease in registration, on the other hand, are—(1) the prosperity of the year, (2) fear of the license-tax which leads money-lenders to split up their bonds into smaller ones, the registration of

which is not compulsory, and (3) in Gházipur, the prohibition of the alienation of occupancy rights. In provinces the great bulk of whose population is engaged in agriculture, and in which three-fourths of the documents registered concern immovable, chiefly landed, property, registration must depend more or less upon, and fluctuate with, the character of the seasons. In the year under report the rainfall was unevenly distributed; and the returns show that in those districts in which the harvest was good there was a decrease in registration, while there was an increase where the harvest was poor. There are, of course, other causes at work affecting the transfer of land besides vicissitudes of season; and an explanation of increase or decrease in registration founded upon the character of the seasons may not meet the case of every province or every part of any province, more especially as the results shown in the returns for similar provinces are so different as to make it difficult to connect the variations in registration with any general cause. But the primary object of collecting these returns is to obtain a series of statistics which, after examination and comparison during a succession of years, may afford data for generalisations as to the nature and extent of the transactions they represent; and there is no harm in suggesting provisional explanations which wider and further experience may confirm or correct. It may be doubted whether the prosperity of the land-owning classes would not in some ways tend to increase registration, though probably not to such a degree as would, in the present economical state of the country, follow large agricultural depression. As matters now stand, the causes which influence registration have not been fully ascertained. It seems however probable that compulsory registration is now very little, if at all, evaded; for money-lenders are shrewd enough not to put themselves entirely at the mercy of their debtors by neglecting well-known provisions of the law, when compliance with them does not as a rule involve much trouble or expense. For this reason it is questionable whether the growth of compulsory registration is now due to the increasing popularity of the system. The assertion that fear of the license-tax checks compulsory registration, made by several Registrars, seems not altogether destitute of probability. But its effect appears to have been exaggerated, as it would appear that in Oudh (excluding the year 1880-81, the

circumstances of which were abnormal) compulsory registration shows a steady and marked increase, while in the North-Western Provinces the number of compulsory registrations during 1881-82 were (omitting the scarcity years 1877, 1878, and 1879) greater than in any previous year except 1880-81. Further inquiry also is needed before it can be decided whether the prohibition of the alienation of occupancy rights by cultivators has much or any general effect.

While the number of optional registrations has decreased in the North-Western Provinces, in Oudh it has continued to increase. The circumstances which lead to these variations have not as yet been very clearly elucidated, but three general reasons have been assigned for the large proportion of optional registrations in Oudh as compared with the North-Western Provinces—namely, that (1) registration officers in Oudh receive a moiety of the fees, and are therefore more interested in promoting registration; (2) registration offices in Oudh are proportionately more numerous and more accessible; (3) mutation of names in the village papers in cases of transfers of proprietary rights is of old standing in the North-Western Provinces and is, in the majority of cases in which registration is not compulsory, considered sufficient, while in Oudh such mutation has only recently been introduced and registration is still commonly resorted to. In so far as explanation seems to be required, these reasons may account for the difference between the returns for the two provinces; but, as a matter of fact, the difference in the ratio that optional registrations bear to the population of the two provinces is not very great. In 1880-81 the number of optional registrations in the North-Western Provinces was at the rate of one to every 897 of the population, and in Oudh at the rate of one to 914, while in 1881-82 the number was at the rate of one to 989 persons in the North-Western Provinces and of one to 910 in Oudh. Compulsory registrations, on the other hand, in 1880-81 were effected at the rate of one to 426 of the population in the North-Western Provinces and of one to 403 in Oudh, and in 1881-82 at the rate of one to 444 persons in the former province and of one to 604 in the latter. The diminution in compulsory registrations in Oudh in 1881-82, as has been already mentioned,

was occasioned by the completion of the revised rent arrangements in the Kapúrthala estate. On the whole, the proportion of optional to total registration in these provinces is high, and in the number of optional registrations the best test of the administration and popularity of the system is to be found. It is in respect of optional registration that further development can in ordinary circumstances be expected, and it rests mainly with the departmental officers to promote this development by making the system of registration "easy, simple, and unburdensome." A registration office has now been provided for every 304 square miles of the area of these provinces; and the District Officers have been directed to exercise such careful supervision as may be necessary to secure that the machinery works smoothly and is adapted to the needs and circumstances of the people.

Sales of immovable property under Rs. 100 in value show in the North-Western Provinces an increase in seven and a decrease in 18 registration districts, and mortgages of the same value show an increase in four and a decrease in 20 districts. Among the districts which show a decrease are naturally to be found those that show a considerable decrease in sales and mortgages of larger values. In Oudh the variations in transactions of this class were slight, six districts showing an increase of sales and five a decrease, while in mortgages the only large variation was a rise of 128 in Rae Bareli.

Under registration affecting movable property, the chief head is "Obligations for the payment of money." Obligations on account of agricultural advances seem to be confined chiefly to the Sháhjahánpur and Bareilly districts, where they are given to sugarcane-growers, and where in 1881-82 registration showed a considerable increase in their number over the preceding year. In the registration of other obligations an increase took place in Oudh and a decrease in the North-Western Provinces. The decrease is attributed to the growth in mercantile places of the practice of lending money on "hundis" (vernacular bills of exchange), and probably traders find it convenient to raise money in that way. Registered wills rose from 841 in 1880-81 to 937 in 1881-82. As usual, a very large share of these (over a third of the whole number) belonged to Benares. The number of general powers-of-attorney authenticated was 1,804 in 1881-82, against 1,571 in the

previous year, and the number of special powers was 3,272, against 8,118, the latter being, as in previous years, most common in Oudh. One thousand three hundred and fifty-seven commissions were issued in 1881-82, against 1,215 in the previous year, and the number of visits paid was 1,778, against 1,580 in 1880-81; the latter having again been most numerous in Benares, Lucknow, Meerut, Bareilly, and Saháranpur.

The total number of refusals to register in 1881-82 did not differ materially from the number in 1880-81, and in the former year registration was ordered on appeal in 39 cases and on civil suits in 14. These appeals were most successful in Farukhabad, and the Inspector-General has been directed to see that the orders on the subject are understood by the Sub-Registrars. The number of applications for copies and searches rose from 16,667 in 1880-81 to 18,303 in 1881-82. The increase was in the North-Western Provinces, and was due to the action of the High Court's Circular No. 4, dated 19th April, 1881, under which, when an application is made for executing a decree against immovable property, the Sub-Registrar is called on to search his registers and make report of the encumbrances on the property. No fees are payable for such searches, and the increase in their number was accordingly not accompanied by an increase in the receipts.

The largest number of deeds registered per office per month was in Benares (109), and the smallest in Lalitpur (3). The cost to Government per deed was lowest in Bareilly, namely, Re. 0-9-3, and highest in Lalitpur, namely, Rs. 3-7-11. The average cost in the North-Western Provinces was 14 annas, and in Oudh 15 annas 10 pie, the figures for the preceding year having been Re. 0-13-4 and Re. 0-14-6 respectively. The total receipts of the Department fell from Rs. 3,48,882 in 1880-81 to Rs. 3,40,965 in 1881-82, but to this latter sum must be added Rs. 1,188, the amount of the registration receipts of Joint Stock Companies. The net income of the Department was in 1881-82 Rs. 1,58,284, against Rs. 1,55,276 in 1880-81, while the percentage of net on gross receipts, namely, 45, was the same in both years. Nine cases of personation occurred during the year, in seven of which three men were convicted, one acquitted, three discharged, and two cases were pending at the close

of the year. Six cases of forgery were reported, all in Azamgarh, in one of which only was a conviction obtained.

10.—MUNICIPAL.

There are 109 municipalities in the North-Western Provinces and Oudh, the same number as in the previous year. The provisions of Act XV. of 1873 were withdrawn from the town of Rudauli in the Bara Banki district, and extended to the town of Dhaurehra in the Kheri district.

Population.—In the report for 1880-81 the population within municipal limits was shown as 3,081,996, and it was said that these figures were subject to alteration when the results of the census had been tested. According to the corrected return the figures are 3,099,868.

Construction of Municipal Committees.—In most of the municipalities the members of the committee are appointed by election. The figures for the two years are noted below :—

	1880-81.	1881-82.
Appointed by election	66	67
Ditto by election and partly nominated ...	7	8
Ditto by nomination only	36	34

The question of extending the system of election to all municipalities is being separately considered in connection with the measures to be adopted under the scheme for local self-government; meanwhile, it may be noted that in the larger towns a willingness to take up the duties of President and Vice-President of Municipal Boards has been displayed, and in several towns non-official members have been elected to those posts.

The number of *ex-officio* and non-official members during 1880-81 and 1881-82 was as under :—

	1880-81.	1881-82.
Ex-officio	438	438
Elected and nominated members	1,022	1,022

The proportion of official to non-official members, and of Europeans to Natives, was much the same as in the previous year.

Taxation.—There were eleven kinds of municipal taxation in force in the North-Western Provinces and Oudh; and the

following table shows the number of towns in which the different systems of taxation have been in force during the two past years.

Tax.	Number of towns.	
	1880-81.	1881-82.
Octroi	91	87
House tax	17	20
License tax	12	14
Tax on vehicles	18	18
Tax on animals	2	1
Tolls	4	3
Conservancy tax	2	2
Stall tax	1	1
Tax on circumstances and property	10	12
Site tax	1	1
Tax on stone quarries	...	1

Octroi.—The withdrawal of the Act from Rudauli, and the abolition of octroi in the towns of Biswan, Shahabad and Piháni, account for the decrease in the figures.

House tax.—This tax was introduced into the newly-constituted municipality of Dhaurehra, and was also substituted for octroi in the Shahabad and Piháni Municipalities.

Licenses on trades.—It was found necessary to supplement the tax on houses in the Shahabad and Piháni Municipalities by a tax on professions and trades.

Tax on animals and tolls.—The Naini Tal Municipal Committee abandoned the tax on animals imposed in that municipality, and substituted for it a toll on laden and other animals, &c, entering the settlement.

Tax on circumstances and property.—This tax was substituted for octroi in the Biswan and Tánda Municipalities.

Tax on stone quarries.—This tax is levied only in the Naini Tal municipality.

The income from each tax and the percentage of receipts from each to total income from taxation are given below for the last two years :—

Tax.	1880-81.		1881-82.	
	Realization.	Percentage.	Realization.	Percentage.
	Rs.		Rs.	
Octroi	20,05,347	90 04	20,74,183	88·98
Tax on houses	51,584	2·31	62,221	2·66
Licenses on trades	96,725	4 34	1,01,633	4·36
Tax on vehicles	15,118	·68	16,725	·71
Tax on animals	2,323	·10	993	·04
Tolls	13,662	·61	21,257	·91
Conservancy tax	12,310	·56	11,729	·50
Stall tax	152	...	397	·01
Tax on circumstances and property ...	28,166	1·27	37,030	1·63
Site tax	1,856	·09	4,543	·19
Tax on stone quarries	...	...	126	·01
Total ...	22,27,273	100·	23,30,837	100·

Over 88 per cent. of the receipts from taxation were derived from octroi. The increase in the realizations from the tax on houses and from the tax on professions and trades is mainly due to the inclusion in the returns of the amounts derived under each head in the Dhaurehra, Shahabad and Piháni Municipalities. The decrease in the receipts from the tax on animals is due to the abolition of the tax levied in the Naini Tal Municipality, while the imposition of a toll in this municipality during the year accounts for the increase in the figures under that head. The inclusion in the returns of the amount realized in the Biswán and Tánda Municipalities accounts for the increased receipts from the tax on circumstances and property. Naini Tal is the only municipality in which a site tax is levied. The increase in the receipts in 1881-82 is due to the imposition of an additional site tax by the municipal committee. This municipality also imposes a tax on stone quarries, and as it was levied from September, 1881 only, the figures appear for the first time in the accounts.

Incidence of taxation.—The provincial incidence of taxation per head of population was 12 annas, as compared with 11 annas 6 pie in the previous year. Excluding the hill muncipalities of

Mussooree and Naini Tal, the incidence was highest in Muzaffarnagar (Re. 1-5-8) and lowest in Ballia (2 annas 3 pie).

Octroi.—The total receipts from octroi, the proportion contributed by each of the eight classes to the whole, the general incidence of tax per head of population who pay it, and the incidence of the receipts in each class, are compared in the following statement for the past two years :—

Classes.	*1880-81.				†1881-82.			
	Receipts.	Incidence.			Receipts.	Incidence.		
	Rs.	Rs.	a.	p.	Rs.	Rs.	a.	p.
I.—Articles of food and drink for men and animals ...	11,68,325	0	6	9	12,49,252	0	7	4
II.—Animals for slaughter ...	60,499	0	0	4	65,126	0	0	4
III.—Articles used for fuel, lighting, and washing ...	1,45,019	0	0	10	1,36,620	0	0	9
IV.—Articles used in the construction of buildings ...	88,242	0	0	6	88,686	0	0	6
V.—Drugs, gums, and spices ...	1,18,078	0	0	8	1,13,483	0	0	8
VI.—Tobacco	56,572	0	0	4	68,795	0	0	5
VII.—Piece-goods and other textile fabrics and manufactured articles of clothing and dress,	2,95,512	0	1	8	2,80,865	0	1	8
VIII.—Metals and articles of metal...	73,100	0	0	5	71,356	0	0	5
Total ...	20,05,347	0	11	6	20,74,183	0	12	1

* Population, 2,775,160. | † Population, 2,732,847.

There is a marked increase in classes I., II, and VI., which is due partly to the prosperous character of the year, and partly to certain changes in the scale of duty levied which helped to encourage trade. The decrease in classes III., V., VII., and VIII. may be ascribed generally to exemptions made during the year, and to the measures taken for protecting through trade. The whole system of octroi taxation has been fully reviewed, and measures have been taken to confine the tax within legitimate limits, by the free grant of refunds and by passing goods in transit through the towns free of duty. The full effect of these measures will not, however, be apparent till next year's report is drawn up.

Refunds.—The amount paid in refunds was Rs. 3,28,736, as compared with Rs. 2,54,678 in the previous year. The steady increase under this head is encouraging, and shows that the efforts which are being made for the protection of through trade are being attended

with success. The municipalities which paid away more than Rs. 500 in refunds are shown in the following comparative statement:—

Towns.	1880-81.				1881-82.			
	Amount.	Incidence.			Amount.	Incidence.		
	Rs.	Rs.	a.	p.	Rs.	Rs.	a.	p.
Saháranpur ...	13,841	0	10	2	9,668	0	9	4
Deoband ...	425	0	6	11	1,765	0	7	0
Muzaffarnagar	1,585	0	13	5	10,222	0	10	10
Shámli ...	195	0	11	7	697	0	9	6
Meerut ...	29,722	0	12	6	38,682	0	10	2
Gháziabad ...	...		...		650	0	10	1
Baraut ...	1 300	0	11	1	1,250	0	10	5
Bágpat ...	1,426	0	11	5	2,483	0	12	10
Hápur ...	3,409	0	14	1	2,965	0	14	10
Pilkhuwa ...	281	0	8	0	505	0	8	11
Khúrja ...	2,036	0	11	6	9,340	0	10	5
Sikandrabad	83	0	10	10	3,693	0	10	2
Koil ...	3,996	0	10	6	9,776	0	11	5
Háthras ...	3,849	0	6	9	5,667	0	6	2
Atrauli ...	345	0	8	0	686	0	8	11
Harduaganj ...	229	0	10	1	701	0	10	0
Muttra ...	3,841	0	11	10	4,197	0	11	8
Kosi ...	1,979	0	12	1	2,005	0	9	8
Agra ...	38,614	0	11	10	42,966	0	11	9
Firozabad ...	952	0	6	4	1,028	0	7	0
Etáwah ...	341	0	9	1	4,312	0	7	9
Mainpuri ...	549	0	9	11	1,269	0	9	5
Farukhabad-*cum*-Fatehgarh	7,655	0	12	3	16,104	0	9	0
Etah ...	451	0	14	11	932	0	14	2
Soron ...	942	0	10	11	1,174	0	10	7
Kásganj ...	1,005	0	11	1	948	0	11	10
Bijnor ...	...		...		508	0	7	2
Nagína ...	379	0	7	0	1,148	0	7	7
Najíbabad ...	1,497	0	11	9	1,725	0	11	4
Moradabad ...	6,484	0	9	4	10,908	0	10	3
Budaun ...	1,016	0	6	10	925	0	6	10
Bareilly ...	21,373	0	11	1	21,706	0	11	9
Pilibhít ...	6,150	0	7	8	3,127	0	8	1
Shéhjahánpur	24,235	0	9	8	15,263	0	9	11
Tilhar ...	548	0	8	8	819	0	8	6
Bánda ...	786	0	11	9	1,279	0	10	3
Fatehpur ...	461	0	9	3	717	0	7	3
Allahabad ...	22,063	0	13	8	25,383	0	15	5
Jaunpur ...	260	0	5	0	752	0	5	6
Gorakhpur ...	12,328	0	8	10	8,051	0	9	4
Azamgarh ...	6,408	0	13	4	7,385	0	13	1
Gházipur ...	5,237	0	10	1	6,831	0	10	7
Benares ...	5,038	0	9	11	7,345	0	10	3
Mirzapur ...	2,670	0	10	0	8,816	0	10	11
Mau-Ranipur	1,986	0	7	10	1,216	0	8	6
Kálpi ...	894	0	11	9	1,596	0	8	8
Kúnch ...	2,700	0	9	8	3,100	0	7	4
Lucknow ...	1,372	0	13	1	1,288	0	14	2
Sitapur ...	1,761	0	8	4	2,000	0	7	1
Sandila ...	1,129	0	6	7	1,939	0	5	11
Fyzabad ...	4,931	0	11	6	15,078	0	11	1
Bahraich ...	193	0	10	5	1,028	0	11	0

Incidence of octroi.—The average incidence of the tax was 12 annas 1 pie, but after deducting Rs. 3,28,736 paid in refunds, the incidence falls at 10 annas 2 pie, the maximum being 15 annas 5 pie at Allahabad, and the minimum, excluding towns where duty is not levied on all articles liable to octroi, 3 annas 4 pie at Mallawan, in the Hardoi district.

The provincial rates of consumption are given below for the chief articles generally taxed :—

Articles.	Provincial consumption.		Government standard.
	1880-81	1881-82	
	Mds. s. c.	Mds. s c	
Grain	6 34 13	6 39 15	Seven maunds.
Sugar, refined... ...	0 8 4	0 6 3	Six seers.
Do, unrefined ...	0 27 7	0 29 14	Fifteen seers.
Ghi	0 3 10	0 3 14	Four do.
Tobacco	0 3 2	0 4 5	Four do.
Oil and oil-seeds ...	0 15 9	0 12 8 Or approximately four seers and three chattacks of oil.	Four and a half seers of oil.
	Rs. a. p.	Rs. a. p.	
Drugs, gums and spices ...	1 3 10	1 2 3	From Re. 1 to Re. 1-4-0.
Cloth	10 6 0	8 14 3	,, Rs. 4 to Rs 6.
Metals	1 11 3	1 9 7	,, Rs. 1-8-0 to Rs. 2.
	Md. s. c.	Md. s. c.	
	0 3 2	0 1 10	

Except in sugars and cloth, the rates of consumption in 1881-82 approximate closely to the Government standard. The taxation of both articles has been the subject of much correspondence, and in some towns, in which it was found impossible otherwise to protect through trade, these articles have been exempted altogether from taxation.

Income from other sources.—The income from other sources is compared in the following statement for the past two years :—

Details.	1880-81.	1881-82.
	Rs.	Rs.
Rents of houses, gardens, markets, &c.	2,22,337	2,33,995
Fines	26,575	24,650
Miscellaneous	3,79,385	3,10,148
Payments for municipal services rendered to individuals,	2,734	1,620
Grants-in-aid from Provincial or Local Funds ...	34,255	34,859

There has been a steady increase in the income derived from rents, due chiefly to the establishment of market-places and the construction of productive public works.

The sum shown under "Miscellaneous" includes receipts from fairs, sale of lands, sale of manure and city sweepings, interest on investments and proceeds of securities sold.

The decrease in the receipts compared with last year is nominal only, as the figures of the latter year include the sum of one and a half lakhs of rupees lent to the Naini Tál Municipality.

The income available for expenditure, including the balance from the previous year, was Rs. 32,04,885. The expenditure is shown in the following abstract :—

Head.	1880-81.	1881-82.
	Rs.	Rs.
Interest on debt	11,815	15,918
Establishment.		
Head-office	53,978	49,761
Collection of octroi	2,00,480	1,95,917
Ditto of other taxes	10,823	14,865
Conservancy	4,26,086	4,37,399
Police	5,84,352	5,84,657
Registration of vital statistics	3,826	3,856
Lighting...	46,839	52,534
Watering roads	32,215	29,738
Total, Establishment ...	13,57,599	13,68,727
Other charges.		
Construction &c., of roads	2,83,147	3,81,321
Drainage works	2,24,324	1,82,169
Water supply	11,235	28,175
Buildings	1,36,047	1,59,638
Other public works	96,191	92,548
Sanitary and charitable grants	78,542	79,566
Education	55,590	55,553
Miscellaneous	1,25,958	2,02,263
Contribution to Provincial or Local Funds	47,741	36,122
Repayment of debt	32,260	27,286
Total ...	10,91,035	12,41,661
GRAND TOTAL ...	24,60,449	26,29,286

The expenditure on conservancy was larger than in the previous year, owing chiefly to some exceptional charges on this account in Mirzapur and Meerut and to larger establishments being entertained in Mussooree and Gorakhpur. Some progress has also been made towards establishing the sewage farm at Allahabad.

Police.—The following table shows the strength of the police force entertained by municipalities, as it stood on 1st December, 1881.

Rank.	1880.	1881.
CONSTABULARY.		
Inspectors	6	6
Sub-inspectors	31	31
Head-constables	321	319
Mounted ditto	1	1
Foot ditto	2,775	2,802
NON-CONSTABULARY.		
Jamadars	206	203
Daffadars	38	41
Chaukidars	3,993	4,006
Total ...	7,371	7,409

The question of relieving municipalities of all charges for police was under consideration at the close of the year.

Registration of vital statistics.—The number of births and deaths registered during the year is shown below :—

		Number registered.	*Ratio per mille.*
Births	...	112,133	37·62
Deaths	...	103,971	34·88

In the report for 1880-81 it was remarked that for the past three years the returns have shown an excess of deaths over births, and that the figures could hardly represent the real course of events. The very marked rise in the figures of the year may be ascribed to more correct registration ; but in some of the larger municipalities there is still an excess of deaths over births, and the attention of the committees concerned has been drawn to the necessity of securing an accurate record of these events.

Lighting and watering roads.—The increase under this head was due chiefly to the increased expenditure in the Agra, Allahabad, and Benares Municipalities. In Agra considerable improvements were effected in the arrangements for lighting by substituting glass lanterns for tin ones and providing side reflectors. In Allahabad nor lamp-posts have been set up, and lamps have been ordered from

England. In Benares the increase was due to the extra expenditure incurred in illuminating the ghâts during His Excellency the Viceroy's visit in November, 1881. Streets are now lighted in 68 municipalities as compared with 65 in the previous year. Road watering is confined to the larger municipalities. The number of towns which expended money on this object was 49, against 46 in 1881-82.

Public works.—The expenditure on public works amounted to Rs. 8,43,851, as compared with Rs. 7,50,944 in the previous year, and absorbed 28 per cent. of the total expenditure. There was an increase under the sub-heads of construction and maintenance of roads, water supply, and buildings; and a decrease under the sub-heads, drainage works, and minor public works.

Sanitary and charitable grants.—The variations in the figures for the past two years call for no remark. Municipalities either maintain their own dispensaries or contribute towards those established by the Government. Under the new local self-government scheme, municipalities, when they are relieved of police charges, will be required to devote a larger sum of money towards the maintenance of medical institutions within their limits. A sum of Rs. 10,272 was expended on vaccination, as compared with Rs. 10,382 in the previous year. The number of operations performed was 108,707, and of these 90·1 per cent. were reported as successful, against 90·2 per cent. in 1880-81. It is satisfactory to notice the warm interest which is yearly being evinced by the native members of municipal committees in promoting vaccination.

Education.—A sum of Rs 52,069 was expended on education, as compared with Rs 52,401 in the previous year. The larger part of the grant is devoted to the maintenance of free elementary schools. As in the case of dispensaries, municipal committees will in future have to provide more largely for local educational requirements.

Miscellaneous charges.—The rapid development of the refund system under which drawbacks are given on goods exported, on which octroi is leviable, accounts chiefly for the increase in the figures for 1881-82. The total expenditure on this head was Rs. 5,30,999, of which Rs. 3,30,616 were paid away in refunds.

Contribution to Local or Provincial Funds.—The expenditure under this head varies each year, as the amount of the contributions depends on the largeness or smallness of the source of income on which the proportion is calculated. The contributions in the year under review are made up of the following items :—

	Rs.
Mussooree—To Landour Cantonment Fund, being one-tenth of the receipts from the toll-bar at Rajpur ...	865
Meerut—To Cantonment Committee as their share of octroi collections	18,057
Agra—To Cantonment Fund for maintenance of police and for other purposes	9,000
Lucknow—To Cantonment Committee as their share of octori collections and for maintenance of the lock-hospital ...	6,600
Fyzabad—To Cantonment Committee as their share of octroi collections	1,600

Investments.—The total amount of invested money in the hands of municipal committees was Rs. 2,10,228, *viz.*, Rs. 1,77,128 in Government securities and Rs. 33,100 in Light Railway shares.

11.—Towns under Act XX. of 1856.

There were 337 towns administered under Act XX. of 1856, as compared with 338 in the previous year. The tax levied in these towns is an assessment according to the circumstances and property to be protected of the persons liable to the same; and is raised chiefly for the purpose of providing a police force in each town. As a rule, the amount collected yearly is not allowed to exceed more than double the cost of police.

The population of the towns was 1,628,662. The number of houses was 350,785, of which 178,381 were assessed to the tax and the rest exempted. The gross realizations from the tax amounted to Rs. 3,40,842, falling at an average of 3 annas 4 pie per head of population and Re. 1-14-6 per assessed house. The total available income of the towns, including the balance from the previous year, amounted to Rs. 4,18,547. The total expenditure was Rs. 3,47,943, of which more than half was incurred on account of police, and the balance on establishment, conservancy, and works of local improvement.

12 and 13.—Military and Marine.

Blank.

CHAPTER IV.

Production and Distribution.

1.—Village Records.

The maintenance and compilation of a body of village statistics which shall put Government and its officers in possession of an adequate knowledge of the actual condition of the rural population, its resources and its wants, has engaged the attention of the administration and formed one of the chief duties of the Agricultural Department. The Director and his Assistant spent the greater part of the marching season in inspecting the kanúngos' records and testing on the spot the accuracy of the village papers. In the majority of the districts visited the statistics are reported to be exceedingly accurate, and to form a trustworthy basis for the land revenue administration in all its branches. The staffs of patwáris and kanúngos were as a rule sufficiently strong in number, and, though some improvement in their reduction is still wanted, far superior in that point to what they had been till quite lately. The results of the especial care that has been paid to them in the last five years are most conspicuous, and leave no doubt of the possibility of obtaining everywhere the same high standard as has already been reached in many districts. Where defects were noticed, the attention of District Officers was called to them by the Board of Revenue. In two districts only, Basti and Gorakhpur, where the village maps were altogether unfit to serve as the basis for agricultural statistics, and where the staffs both of kanúngos and patwáris were inadequate in number and defective in discipline, special measures, which are now under the consideration of Government, were thought necessary.

The revised code of rules for patwáris and kanúngos which had been prepared by the committee especially appointed for the purpose was considered by the Lieutenant-Governor and returned to the Board of Revenue, with instructions to them to have it

recast in the light of His Honor's criticisms. They were directed to send in a draft of the rules which they were prepared to finally recommend, together with their reasons in each case for any alterations that might be proposed. This has since been done, and the rules as now recast are under the consideration of Government.

The Director of Agriculture and Commerce held several examinations of the kanúngo staff during the year. Of a total num- on the roll of 613, 436 have now passed the qualifying examination. Rája Shankar Singh of Etah established a special school for the training of patwáris and kanúngos at Etah. It has been provided that ex-settlement employés should have a preferential claim to appointment on the kanúngo staff. During this year 13 have passed the examination and 8 have been provided with appointments. As few of this class remain, candidates who have passed the entrance examination of the Calcutta University are admitted; of the 30 examined, no less than 10 were rejected as being physically unfit. Ten have been appointed to serve as apprentices in actual field work and six have been appointed kanúngos.

In the whole of the North-Western Provinces except Jaunpur, from which no returns were received, and Kumaun and Garhwál, where there are no patwáris, out of a total number of 20,006 patwáris, 16,916 were resident in their circles on the 1st October, 1881, as against 15,475 on the 1st October, 1880.

The percentage of resident patwáris thus increased by 7 per cent. between 1st October, 1880 and 1st October, 1881. In districts where settlement operations were going on patwáris were not compelled to reside, pending the rearrangement of their circles at the termination of settlement. One-tenth of the entries in the field books and more than 86 per cent. of the whole number of villages were tested on the spot by the kanúngos, and 93·3 per cent. of the entries tested were found correct.

The superior revenue staff, including Collectors and their Assistants and Deputies, tested a considerable number of entries in both field-book and rent-roll and found 95·8 per cent. accurate. There is a great improvement in the punctuality with which all village papers, except the rent-roll, are filed.

2.—MISCELLANEOUS.

(a)—*Batesar Fair.*

The attendance at the Batesar fair held in November last was as follows :—

People	89,396
Horses and ponies	14,260
Camels	5,808
Cattle	35,307

The exhibits of cattle consisted mainly of cart and plough bullocks ; there were few bulls and cows. A small number of bulls were bought at the last fair by the Agricultural Department and taken to Lucknow, where they obtained prizes. Careful enquiries were made into the details of the cattle traffic and embodied in a note by Mr. Fuller. The most characteristic features of the traffic are—

(1) The import of young stock by dealers from the breeding-grounds in the tract comprising portions of the Muttra and Gurgaon districts and known as Mewat.

(2) The purchase of this young stock by zamíndárs and cultivators of the Jumna ravine tract east of Agra, who put them out to graze for two or three years and then bring them back to the fair for sale.

(3) The purchase of these full-grown cattle (together with others imported by local dealers from breeding-grounds in Bhind and Gwalior) for agricultural purposes in the Meerut and Rohilkhand Divisions.

(b)—*Talukdárs' Agricultural Meeting at Lucknow.*

An agricultural meeting and exhibition was held at Lucknow, on the 29th, 30th and 31st December, by the Talukdárs of Oudh, under the presidency of the late Mahárája Sir Digbijai Singh Bahadur, K.C.S.I. There were four main sections—those of cattle, agricultural implements, agricultural produce, and arts and manufactures, to the last of which a fine loan collection was contributed by the nobles and princes of Oudh. A separate committee adjudged the prizes in each section. The show of cattle was very meagre. Only 98 head under all classes were entered, and they were generally inferior to the exhibits of the previous exhibition.

The only inducement that can be relied upon to bring together collections of cattle is the prospect of being able to sell, and this inducement did not obtain at the Lucknow show. The collection of grain, on the other hand, was very good, and the opportunity which it afforded to the public of comparing the grains from the different districts should be of great benefit. It was satisfactory to see that the previous exhibition had the effect of making exhibitors pay more attention to the cleanness of their grain. The number of exhibits in the section for agricultural implements was 145, of which a considerable portion was contributed by the Agricultural Department. Careful trials were made with different ploughs and waterlifts, and the first prizes under both these heads awarded to implements manufactured at the workshops of the Cawnpore Experimental Farm. Amongst sugar-mills the Bihia mill of Messrs. Mylne and Thomson, which is now in general use in many parts of the country, deservedly obtained the silver medal. The collection of arts and manufacture was large, valuable, and interesting.

At the committee meetings papers were read and discussed on questions affecting the agreulture of the provinces, and the free expression of opinion and interchange of views between the native gentry and the European officers formed one of the most striking and valuable features of the exhibition. The large attendance at the exhibition sufficiently testified to the interest taken in the show by all classes of the community. Agricultural shows were also held at Khairabad (Sitapur), Fyzabad, Gonda, Bahraich, Bulandshahr, Saháranpur, Meerut, and Aligarh, which, though on a far more modest scale than the Lucknow exhibition, can hardly fail to exert a beneficial influence on agriculture in their respective districts.

(c)—*Steam Plough.*

The area ploughed up to December last was 847 acres, and there can be no doubt whatever of its being able to plough at least 1,200 acres during the year. The cost, allowing for repairs and contingencies and deducting working expenses for the months when it cannot be used, was at the rate of Rs. 6,000 per annum, but if coal fuel were used the annual expense would be raised to Rs. 9,000. The cost then of ploughing, without making any

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(b)—*Talukdárs' Agricultural Meeting at Lucknow.*

An agricultural meeting and exhibition was held at Lucknow, on the 29th, 30th and 31st December, by the Talukdárs of Oudh, under the presidency of the late Mahárája Sir Digbijai Singh Bahadur, K.C.S.I. There were four main sections—those of cattle, agricultural implements, agricultural produce, and arts and manufactures, to the last of which a fine loan collection was contributed by the nobles and princes of Oudh. A separate committee adjudged the prizes in each section. The show of cattle was very meagre. Only 98 head under all classes were entered, and they were generally inferior to the exhibits of the previous exhibition.

The only inducement that can be relied upon to bring together collections of cattle is the prospect of being able to sell, and this inducement did not obtain at the Lucknow show. The collection of grain, on the other hand, was very good, and the opportunity which it afforded to the public of comparing the grains from the different districts should be of great benefit. It was satisfactory to see that the previous exhibition had the effect of making exhibitors pay more attention to the cleanness of their grain. The number of exhibits in the section for agricultural implements was 145, of which a considerable portion was contributed by the Agricultural Department. Careful trials were made with different ploughs and waterlifts, and the first prizes under both these heads awarded to implements manufactured at the workshops of the Cawnpore Experimental Farm. Amongst sugar-mills the Bihia mill of Messrs. Mylne and Thomson, which is now in general use in many parts of the country, deservedly obtained the silver medal. The collection of arts and manufacture was large, valuable, and interesting.

At the committee meetings papers were read and discussed on questions affecting the agreulture of the provinces, and the free expression of opinion and interchange of views between the native gentry and the European officers formed one of the most striking and valuable features of the exhibition. The large attendance at the exhibition sufficiently testified to the interest taken in the show by all classes of the community. Agricultural shows were also held at Khairabad (Sitapur), Fyzabad, Gonda, Bahraich, Bulandshahr, Saháranpur, Meerut, and Aligarh, which, though on a far more modest scale than the Lucknow exhibition, can hardly fail to exert a beneficial influence on agriculture in their respective districts.

(c)—*Steam Plough.*

The area ploughed up to December last was 847 acres, and there can be no doubt whatever of its being able to plough at least 1,200 acres during the year. The cost, allowing for repairs and contingencies and deducting working expenses for the months when it cannot be used, was at the rate of Rs 6,000 per annum, but if coal fuel were used the annual expense would be raised to Rs. 9,000. The cost then of ploughing, without making any

charge for interest on the original outlay, would be Rs. 5 per acre if wood, and Rs. 7-8 if coal were used.

The total receipts were Rs. 2,014-14-0, or about Rs. 5 per acre.

In January of the current year the Assistant Director of Agriculture and the Engineer in charge of the ploughing operations discussed the future of the plough with the Collector of Bánda. A report was submitted to the following effect :—

(1) There was no more Government land to plough.

(2) That the plough must in future work in zamíndári land.

(3) That the zamíndárs were not willing to pay more for the steam plough than what would be paid for an ordinary plough ; that only one, Chandi Singh, had come forward with an offer of Rs. 3-4-0 per acre, and that even he showed no anxiety to have his offer taken.

(4) That the supply of wood at Bánda had been exhausted and in future coal must be used, with the effect of raising the expenses 50 per cent.

(5) That the *káns* grass, for the eradication of which the plough had been imported, had spontaneously disappeared, and that one of the main uses of the implement had therefore ceased to exist.

The plough will accordingly be sent to the Cawnpore farm, and it is possible that the engines may be employed to pump water from the Ganges for irrigation in connexion with the tobacco farm at Gházipur.

(*d*)—*Reh Experiments.*

Among the experiments tried with the object of finding some means of curing *reh*, the principal were the planting of trees and grass, the application of manures and drainage.

Of the different kinds of trees experimented with *kikar* and *babul* appear best suited.

The seed, however, rarely germinated unless a layer of from three to six inches of moderately good soil was put on the surface.

The ordinary *úsar* of the bed was loosened to a depth of three feet, to admit of penetration by the tap root. Unless canal water can be obtained, there does not appear much use in attempting plantations of this kind.

Of *úsar* grass, of which many kinds have been discovered and named, the *Khar úsara* is by far the best, and experimental weighings on unirrigated land, where it had been properly protected, gave in the first year an average outturn of more than 30 maunds, or from 1 to 1½ tons to the acre, while on irrigated land the produce reached two tons to the acre. But it is essential that cattle should be excluded. Some salt plants have been received from Australia, of which the *Artiplex nummularia* promises to do well.

None of the manures tried and none of the special crops gave any return. Green soiling with hemp proved equally unsuccessful.

Surface drainage, subsoil drainage, and flooding and allowing the water to stand were all tried. None of these had any effect, and the accuracy of the theory that *reh* deposits are formed by the drainage of soluable salts from the higher to lower levels is open to doubt. The prevalence of *reh* on low tracts appears, on the contrary, to be mainly due to erosion. There is usually a very thin deposit of rather better soil on the surface of *úsar* plains on which grass will grow, and if this is washed away nothing is left but the salt underneath it, which is absolutely barren.

It is thought that a thin humus might be deposited by the formation of silt beds from the canal, and that the *úsar* grass is sure to do good by arresting drainage and the accompanying erosion.

With a view to determine whether or no *reh* is on the increase elaborate measurements have been made in 65 villages in the Akrabad pargana. The change, if any, is very slow, and trustworthy results cannot be expected from the measurements of only a few years. A map has been prepared showing the extent of *úsar* in almost every village in the Doáb and in a part of Rohilkhand.

Mr. Buck and Dr. Schlich met the Director of Agriculture at Áwa in November last, and the results of the experiments were thought sufficiently encouraging to warrant the proposal of a scheme for the enclosure of very large areas of *úsar* land. In pursuance

of this scheme operations have already commenced on two plots of *úsar* in the neighbourhood of the Cawnpore Experimental Farm.

(*e*)—*Glass Manufacture.*

The chief object of the experiments was to ascertain whether a better material could not be produced from the *reh* by the use of furnaces made on the English pattern than the rough glass which is manufactured in the Aligarh and Etah districts.

A satisfactory form of furnace was determined upon after repeated alterations, but the four crucibles obtained from the Ránigánj pottery have all burst. The tools procured from Venice were used on glass manufactured on a slightly improved modification of the native plan, but as yet only the simplest form of bead has been attempted with the object of teaching the natives employed the use of the implements. The operations of the year lead to the following conclusions :—

(1) That there is no use to try to make good colorless glass like English window glass in these provinces, as the *reh* is not sufficiently free from impurity.

(2) That, if a good furnace is constructed of fire brick with reservoirs, a material can be made similar to common bottle glass much superior to *kanch* and probably cheaper.

(3) A glass furnace requires so much care, both in building and working, that it would probably be advisable to employ a European, who thoroughly understands the work, for its supervision.

(4) That good beads can be made, but that, unless the man can be thoroughly instructed in the use of implements, it may cost more to make them here than to import them from Venice.

(*f*)—*Construction of Wells.*

The conduct of an analysis of the province with the view of ascertaining in which directions, and under what conditions, an extension of irrigation wells is possible, formed the most important of the duties for which Captain Clibborn was attached to the Agricultural Department. His tour traversed portions of twenty districts, and careful experiments on the well irrigation actually in existence were made at each camping-ground, which resulted in a very large collection of facts relating to this subject.

Arrangements were made in 1880 for the conduct of special experiments at Moradabad with the view of ascertaining the best way of dealing with landlords and tenants, and how most economically to construct masonry wells with a full supply of water. The form of well decided on was a masonry reservoir, sunk to such a depth only as would allow the free play of the bucket at a period of greatest exhaustion. This was to be continued by a tube down to the depth where a copious supply of water was obtainable. After a very large number of experiments *gúlar* wood piping of 5 inch diameter was adopted. Besides this, a very excellent sand pump, which is likely to play an important part in well-sinking in the future, had been constructed for clearing the way for the tube. Some progress was made in construction and arrangements entered into with cultivators and zamíndárs for the recovery of the money to be invested by the State. During the year under report twenty-three wells have been quite finished--that is to say, the cylinders have all been built and sunk and pipes let down to as great a depth as with our present knowledge is thought necessary.

In October, the eleven wells, which at that time were fully completed, were tested. The trials showed that except in two, where the cylinders rested on clay, and the old Hasanpur well, the cylinders filled with sand as soon as any considerable strain was put on them. Unless this defect were remedied, the wells were nearly useless and threatened to be altogether engulphed. In each well which rested on sand a bottom of *kankar* was therefore rammed in, the full effect of which has not as yet been ascertained. In May last a bottoming of impervious concrete was put down in one of the wells, which secures that all the water should come up through the tube. Trial waterings have been made from this with results which, though inconclusive, are not wholly unsatisfactory. With the sinking of the masonry and pipes the main labour and expense is at an end. All that now is required is careful experiment to find out the actual value of the completed wells, and perhaps to suggest a few easy and inexpensive alterations.

Besides these wells, zamíndárs have undertaken the construction of twenty wells and received advances from Government.

Jaithra wells.—The large sum of three lakhs of rupees is being expended in providing parts of the Awa estate with wells. The

operations up to date have been in the charge of Mr. Wilson, whose services have been placed at Mr. Crooke's disposal by the Agricultural Department.

The wells in course of construction at Jaithra are of three kinds :—

(1) Spring wells, in which the masonry rests on clay.

(2) Spring wells, where the masonry rests on sand, and the water is drawn from a tube, continued from the cylinder, and piercing the clay.

(3) Percolation wells, drawing their water from the surrounding sand. In each case where the cylinder does not reach clay, it is furnished with a solid concrete plug, to keep the sand from coming in at the bottom.

There can be no question of using any form of well but the first, where the clay stratum is within such a distance of the surface that a cylinder of the depth wanted for irrigation will rest on it. Where the clay stratum is further from the surface, it is still a problem whether the tube well or the percolation well is cheaper or more stable, or gives a better supply of water.

So far, 18 wells have been built and sunk to depths varying from 20 to 30 feet below the percolation level and cylinders commenced in 20 others. A sand pump of a new pattern was received in May, and since then 27 borings have been made to an average depth of 27 feet each, at a cost of Rs. 3 each for labour, and Rs. 5 if the price of the instrument be charged.

(*g*)—*Exhibitions.*

(*a*) *Calcutta.*—The value of the goods exhibited by the Agricultural Department at the Fine Art Exhibition in Calcutta was Rs. 5,683, of which Rs. 562 was the property of Government, while it acted as medium and paid the railway expenses on the remainder.

The goods exhibited were—

Moradabad metal ware.	Benares kincobs and embroidery.
Lucknow lace.	Mirzapur lacquer work.
Jhánsi carpets.	Ditto carpets, jail made.
Benares brass ware.	Ditto do., bazar made.

Lucknow bidri and zarbuland work.

(*b*) *Sidney.*—The accounts of this exhibition have been finally wound up. Two bronze medals and five diplomas were gained by the Department of Agriculture and Commerce, one bronze medal and two diplomas by the Muir Mills, and one bronze medal and a diploma each by the Central Prison at Agra and the Elgin Cotton Mills.

(*c*) *Melbourne.*—Mr. Buck presided over the Indian Committee at Melbourne. The contributions of Government were on a much larger scale than they have been at any other exhibition. Besides a collection of stones and natural products, specimens of the following wares were purchased and exhibited by Government :—

Agra stone and marble work.	Lucknow chintzes.
Ditto carpets.	Bánda stones.
Aligarh cotton cloth.	Benares brass work.
Bareilly carpets.	Azumgarh satin.
Bijnor wood carvings.	Ditto pottery.
Moradabad metal ware.	Jhánsi carpets
Mainpuri wood inlaid with wire.	Do. peacock feathers.
Farukhabad chintzes.	Ludhiana cloth.

In addition to these a very large and miscellaneous collection, representing nearly every industry in the provinces, was sent by private individuals and firms through the agency of the Agricultural Department.

Medals or certificates were awarded to Government for myrobalans, dyeing and other vegetable substances, lacquered work and stone ware, models of fruit and vegetables, wood work, carved and inlaid, oils and rice. Private exhibitors from the provinces received medals or certificates in the following classes :—Cotton manufactures and tents (Elgin Mills and Muir Mills, Cawnpore); mats and carpets (Bareilly, Beni Prashad of Mirzapur); stone work, carved and inlaid (Nathu Ram and Sewa Ram and Mr. A. M. Seushner of Agra); Moradabad metal ware (Mir Imdad Ali, C.S.I.); teas (the Kausani and Lines tea estates); sugar (the Rosa Factory); gold-smiths' work (Lalas Kalika Das and Sanwal Das of Lucknow); gold embroidery (Lalas Gopinath and Kishori Lal of Lucknow); Bareilly chairs (Messrs. Gaslett and Co.), and beer (Naini Tal Brewery).

(*h*)—*Museum.*

In pursuance of a scheme set on foot in June, 1880, for forming a collection of models and drawings of agricultural implements, &c., a collection of 61 models was made over to the Lucknow Museum, and a better set, embracing all the improved appliances which are likely to prove attractive to the Indian agriculturist, is in course of construction. The scheme will probably be extended so as to embrace, besides the collection of agricultural implements, agricultural products, and specimens of local art and manufactures for introduction to the travelling public and other possible purchasers.

3.—Agriculture.

(*a*)—*Weather and Crops.*

The most striking features in the character of the weather were heavy rain throughout July and August, followed by a complete cessation at the beginning of September. In some districts there had been heavy showers in June, but they were not at all general. After August very little rain fell except in the Benares Division, Kumaun and the Dún, and the October rains failed almost completely. During the cold weather (except in Bijnor, which registered nearly three inches) there were in no part of the provinces more than a few light showers of little or no value to the crops. The winter however was exceptionally mild ; there was very little frost and no hail, and the health of both the cultivators and their cattle was excellent.

Cotton suffered in Bundelkhand, where it forms a leading staple of the kharíf, but was fairly good in Agra and the upper Doáb. As might have been expected, the early rice crops generally turned out well, but transplanted rice failed almost entirely except where it could be supported by artificial irrigation.

The rest of the kharíf harvest with unimportant exceptions was fairly good. Even in the Rae Bareli and Allahabad Divisions, where the loss was heaviest, it was not serious.

As the whole of the rabi harvest was raised on artificial irrigation, the outturns are surprisingly high, and it is satisfactory

to notice how little the provinces are dependent on the winter rains. The chief crops averaged—

	Sugar-cane.	Arhar.	Wheat.	Barley.	Peas and gram.	Masúr.	Rape-seed and mustard	Linseed.	Poppy.	Other crops.
In the North-Western Provinces,	14	12	12	12	11	12	12	12	13	13
In Oudh ... --	13	12	12	12	9	10	12	10	13	14

The outturn was of course heaviest where irrigation is most general. The crops around the village sites were almost everywhere of exceptional excellence and went to compensate for the loss on outlying lands. Great services were rendered by the canals, especially by the Upper and Lower Ganges and the Eastern Jumna.

(*b*)—*Sericulture.*

Messrs. Lister and Co., to whom the sericultural operations previously carried on by Government had been transferred, are actively pushing operations. They have now 50,000 seedlings of mulberries and four acres of cuttings in the Song grant. A canal for irrigation has been dug 4¾ miles long, and the firm hope to plant out 200 acres during these rains. The young trees are of both varieties, the *Sinensis* and the *Multicaulis*, and Major Murray, who manages the concern on the part of Messrs. Lister and Co., believes that, provided the leaf be healthy, it is a matter of indifference which tree is planted.

The want of leaf is one of the principal drawbacks of Dehra itself as a centre for sericulture. There is only a very small supply beyond what is given by trees planted in avenues along the sides of the roads, and they are too few, or too distant, to be of much service. Last year half the silkworm seed put down by the firm had to be thrown away for want of food. This year only 12 ounces were put down, and even then there was not enough leaf for night feeding, though the trees were stripped for three miles round. Moreover, the roadside trees, not being manured or tended, threaten to give a continually diminishing supply.

Cottage cultivation was not a success. The amount produced last year by villagers was 12 maunds 24 seers green. But they were paid Rs. 40 for a green maund. The same quality in the Panjáb commands Rs. 16, Rs. 20 or Rs. 24, according to quality. The price of a maund of dry silk in Calcutta may be taken at from Rs. 80 to Rs. 100, and it is equivalent to nearly three green maunds. It follows that to pay Rs. 40 for a maund of green silk must inevitably result in loss. As the Dehra silk is of medium quality, Major Murray this year offered Rs. 20 per maund for the produce. When he came to distribute the seed only two cultivators were found who would accede to the terms, and they took only four ounces of seed. Owing to want of cleanliness and limited accommodation their seed only produced about ten seers of silk to the ounce, or little more than a third of the result obtained by Major Murray.

No reeling is now done at Dehra. The best cocoons are reserved for seed; the rest are killed and sent to the branch in the Panjáb, together with the pierced cocoons which have been left by the moths.

The two great desiderata are mulberry trees and rearing accommodation. With regard to the first, the initial difficulty is that trees to be of any use must be within a short distance of the rearing sheds. It hardly pays to carry them three miles, and certainly not further. The land near Dehra is already taken up by crops and gardens, and is so extremely valuable that it is doubtful whether to plant it with mulberries, which might after all never be used, could be justified. To plant trees in the jungles is to anticipate on insufficient grounds the locality which a future silk enterprize might select. A small nursery has already been started at Dehra and other measures are under consideration.

(*c*)—*Tobacco culture.*

A lease has been executed by Government during the year under report conveying the Gházipur farm to Messrs. Begg, Sutherland and Co., for fifty years, at an annual rent of Rs. 6,500.

During the last season 482 acres were under tobacco as against 404 acres last year, and the produce rose from 270,000lb. to 326,000lb. It is a singular fact that the rate of produce per acre is almostly exactly the same in both years, *i.e.*, 675lb. per

acre. The home cultivation covered 216 acres, while 266 acres were bought from independent cultivators. The area under cultivation for the ensuing year will probably be extended still further, and the firm confidently look forward to the season 1882-83 as promising to be the best since the commencement of the enterprize.

About 60,000lb. of cured tobacco were shipped to England and realized the high price of 5*d.* per pound. A similar quantity was manufactured into smoking tobacco for the Indian market and 10,000lb. were made up into cheroots and 800lb. into cigarettes. The prices realized in India were about 6 annas per pound for Cavendish and one rupee for smoking mixtures, and 8 annas for cheroots and Rs. 2 for cigarettes.

Five Europeans and Americans and a daily average of 401 natives are employed. The firms have been offered the use of the steam-engine which worked the plough at Bánda to lift the water of the Ganges for irrigation purposes.

(*d*)—*Horticultural Gardens, Lucknow.*

The cost of these gardens, which continued under Mr. Ridley's management has been as follows:—

		Total, expense.	*Receipts.*	*Net cost.*
		Rs.	Rs. a. p.	Rs a. p.
1880-81	...	14,075	10,565 14 3	3,509 1 9
1881-82	...	13,500	10,148 11 3	3,355 4 9

Their main functions, in which they are very successful, are the distribution of improved varieties of all kinds of horticultural produce, and the introduction of new kinds, both of plants and of cultivation. Their cost is very small, and would have been still less but for the entire failure of the mango crop for two years running. As at Saháranpur a considerable number of apprentices are in training to supply the want of skilled gardeners elsewhere.

The profits of fruit culture, though considerably below those of last year, contrast favourably with the grains from ordinary field cultivation, and omitting the vines, which proved a complete failure, ranged from Rs. 7-4-9 per acre in the case of Malta lemons to more than Rs. 66 in the case of líchís, the average profit per acre on all kinds of fruit having been more than Rs. 34. As the old vines are apparently effête, they are being replaced by younger

plants; but neither young nor old produced this year any crop worth speaking of. Foreign varieties were inarched on country stocks, and a number of new kinds, for which the analogy of past experience holds out a good prospect of success, have been imported from Europe. A few trees were covered in with muslin, but Mr. Ridley finds it difficult to decide whether the advantages or disadvantages of this plan predominate. Good fruit was obtained from the Arabian date, and no mention is made of the usual complaint that it ripens too late to avoid spoiling by the rains. It is generally found advisable to pick the fruit as soon as the rains set in and allow it to mature under cover. Very little additional information was obtained in the case of oranges and limes. The order of merit in which the several varieties were arranged last year has been found to hold good.

The trials with carrots contradicted the usual experience of the deterioration of acclimatised root seeds. Seeds which had been acclimatised for two years gave 50 per cent. more produce than newly imported, and 30 per cent. more than one year old seed. The common defect of premature flowering was not obviated and the experiment was far from being conclusive, but it yields some hope of the successful introduction of what may prove a valuable addition to the food and fodder resources of the country.

It was shown that some of the country vegetables, and especially those of the *gourd* family, are capable of improvement by selection.

The acclimatisation of flowers has proved so successful that it is to be regretted that public gardens do not indent for their supplies more generally on Mr. Ridley. The demand for the very beautiful roses grown at Lucknow was so great that it was found impossible to satisfy it. The stock is being increased.

A small exotic nursery is attached to the gardens, in which a large number of varieties of imported trees are cultivated. *Carob* continues to be a source of disappointment; the older trees die out, and it is found impossible to raise others. *Eucalypti* give more reasons for satisfaction. Three new varieties—*diversicolor*, *ficifolia* and *carry nocalix*—have been raised, and the latter promises to be a valuable fodder tree.

The annual flower show held in connection with the gardens on March 2nd was the best that has been known, and it is a matter for satisfaction that the show of the vegetables proved that native *mális* are beginning to pay more attention to quality than to size—a result which may fairly be attributed to the influence of these exhibitions.

(*d*) *Saháranpur Botanical Gardens.*

The Saháranpur gardens have throughout been in charge of Mr. Duthie, with a trained gardener, Mr. Collan, as his Assistant.

The cost of the gardens has been as follows :—

	Total expenses.	Receipts.	Net cost.
	Rs. a. p.	Rs. a. p.	Rs. a. p.
1880-81	24,524 3 3	6,658 5 0	17,865 14 3
1881-82	29,164 12 8	9,292 13 3	19,871 15 5

The following is the distribution list as compared with that of the preceding year :—

	1880.	1881.
Fruit trees and cuttings	7,183	7,783
Strawberry plants	42,225	54,100
Ornamental plants	8,115	10,350
Seed of all kinds (packets)	11,990	15,198
Timber trees and Agave...	...	8,691
Total of all kinds ...	69,513	96,122

Of drugs for the Medical Department, *hyoscyamus*, *aconite*, *taraxicum* and *kaunla* have already been successfully grown and prepared, while *colocynths* and many others are expected shortly to be added to the list, and great activity has been shown in the acclimatisation of foreign flowers and vegetables, the improvement of indigenous varieties, and the introduction of new kinds of plants, trees, and fodder grasses.

In the training of native gardeners a small measure of success has been attained and gardeners have been sent to Peshawar, Amritsar, and Calcutta, while there is a considerable staff of

apprentices, some of whom, it is hoped, may soon be qualified to be of service in public gardens elsewhere.

A scheme for removing the two small hill gardens at Mussoorie and Chajuri to a site between Mussoorie and Rajpur, which has greater natural advantages and is more conveniently placed for purposes of supervision, has been sanctioned.

In addition to his ordinary duties in connection with the gardens, Mr. Duthie's services were utilized by the Forest School at Dehra (where he delivered lectures) and by the Fodder Committee. He also made an excursion to Calcutta and Darjeeling to complete his knowledge of Indian grasses, and two botanical tours in the Himalayas.

Kumaun Orchard.—With the object of providing neighbouring villagers and European settlers with good fruit trees, an apple orchard is maintained by Government at Muktesar near Almora. Good progress has been made during the past year in spite of the unusual drought; 1,021 apple grafts and 243 chestnut trees were given away. The villagers have applied for many more trees, and as the small gardens already started succeed the demand is nearly certain to increase.

The present stock consists of—

Apple grafts	5,629
Grafted pears	266
Chestnut trees	434
Apple seedlings	10,000

of which more than half will be ready for grafting next spring.

Last year's crop of potatoes was excellent: about 200 maunds were sent to Assam and Burma, and large quantities were distributed both in the hill and plain districts of these Provinces.

(*e*)—*Cawnpore Experimental Farm.*

The agricultural experiments as conducted at the Cawnpore Farm not only ascertain the direction which improvements should take, but they also make Government acquainted with the actual conditions and results of existing cultivation. Irreconcilable differences of opinion exist on the latter point that much value attaches to the weight of the crops obtained on the farm. In the spring

of 1881 the average weight of wheat grain obtained on nine plots under various kinds and quantities of manure was 1,236lb, or more than 20 bushels per acre; while barley on unmanured land, which had been ploughed early, yielded 1,840lb. of grain, and on heavily manured land 3,603lb. The land from which the wheat had been reaped was sown with maize for the ensuing autumn harvest, and, where unmanured, gave an outturn of 1,239lb, making with the wheat of the previous harvest a total produce of 1,946lb. per acre in the year, though neither crop had been manured. Where poudrette was used the total produce of both crops, wheat and maize, reached 3,342lb, or nearly 63 bushels to the acre. In the crop cut last March the outturn of wheat averaged 1,390lb. on the whole area sown (16·8 acres), and on one unmanured plot reached 2,662lb. Common gram without manure gave 1,932lb. and cotton an average of 161·8lb. of clean fibre to the acre, the assumed provincial average of the latter crop having been 66lb. in the same year. The natural quality of the farm land is very poor, especially in *nitrates*. The instances in which unusually heavy manure was given were rare, and hardly affected the general results. The only advantage not enjoyed by the ordinary native cultivator was the use of the soil-inverting plough, and against this should be set unsuccessful experiments with manures and a perhaps unusual amount of double cropping.

The chief lesson taught by the repeated experience of every harvest is that the great want of Indian agriculture is *nitrogen*. Without recapitulating the numerous experiments that were made, it may be said that whereas the results from the application of lime *phosphates*, or *potash*, were conflicting and sometimes positively injurious, the benefit from the use of *nitrates* was throughout great and certain. The results obtained by experiment were confirmed by a scientific analysis of the farm soil. Of the various ways in which the want of *nitrogen* may be supplied the simplest is that of early ploughing, which certainly enables the land to absorb the maximum of *ammonia* from the rain, and probably admits of considerable nitrification.

Another simple and very efficient method of supplying *nitrogen* was found in green soiling, that is, ploughing in any leguminous

crop. The first tried was indigo, but hemp was subsequently used as cheaper and equally effective. The expense is trifling, being merely the value of the seed, and the cost of a single ploughing. The increase in grain obtained was 73 per cent. in the spring of 1881 and in 1882, 33 per cent. without, and 74 per cent. with, the addition of 120lb. of *gypsum* to the acre. As yet no counter-balancing disadvantages have been discovered.

Among ordinary manures the importance of all kinds of *excreta*, and probably of *saltpetre*, was strongly emphasized.

The advantages of deep ploughing have been so far accepted that it is now the only form of cultivation in use on the farm.

Experiments with canal and well water gave a slight advantage to the latter, which may perhaps be accounted for by the greater opportuneness with which the cultivator can apply it. It was shown that a single watering increased the value of the produce by more than Rs. 33 per acre. A number of new staples have been tried, of which the most promising are Georgian cotton and Cape oats. The former, though not giving so large a yield as the indigenous *Kulpahar* on inferior soil, easily distanced it on heavy land, and a field which has been left over from last year now gives the promise of a magnificent second harvest. Its cotton commanded Rs. 25 per maund in the Cawnpore market at a time when native varieties were being sold at Rs. 18, so that with a smaller outturn it might prove a more profitable crop. A very small packet of Cape oats was received two years ago and yielded the large rate of outturn of 2,334lb. per acre to the first, and 1,640 to the second time that it was sown. The wheat and maize sown on the farm were generally the native varieties which have attained so high a degree of merit at Meerut and Jaunpur respectively; and the success which has attended their introduction at Cawnpore shows what may be affected by a judicious selection of country seed.

Agricultural implements.—The form of the improved plough received its latest development a little more than a year ago, when a long beam was substituted for the short beam which had been adopted

from its American models. The short beam was not adapted to native habits and had no real advantage beyond a slightly increased facility in turning the corner at the end of a furrow, so that the alteration has certainly increased the popularity of the implement without seriously detracting from its utility. During the year under report 393 ploughs have been distributed and the demand for them shows signs of increasing.

The want of the Meerut division, where for certain forms of cultivation a heavier implement is required, appears to be met by slight modifications of Ransome's B. F. O. or Watt's steel plough, both of which can be obtained at the workshops of the farm.

The form of the water-lift was decided on early last year, and 46 have been sold. Even now it cannot be said to be final. It was at first thought that 20 feet would be the limit at which it would work efficiently, but it has since been found that, by slightly reducing the diameter of the tube, water may be lifted in amply sufficient quantities from depth of at least 30 feet, and probably more.

The winnower mentioned in last year's report has been repeatedly tried both against the native method and English machinery. Though less effective than the former in a high wind, it got much better results in a calm, and held its own with the imported machinery. As however at the time when a winnower is wanted there is generally a prevalence of high wind, and the natives have at the same time very little other employment, it does not appear that the machine is likely to come into general demand. Only a very few have been sold.

A wind mill (the kewani) was subjected to the most careful and elaborate trials and unhesitatingly condemned. It has no advantages over the modes of lifting water now known in the country and is liable to be carried away by dust-storms.

A combined threshing and winnowing machine manufactured by Messrs. Hubner and Sons, of the United States, gave excellent results, but it is still doubtful whether it can do enough work to cover its original cost.

Native Zamíndárs and Court of Wards.—The experience gained on the Cawnpore Farm finds an echo in many parts of the province, and a number of the leading native gentry have entered into communication with the Agricultural Department. Its most regular correspondents have been Pandit Ajudhiya Parshad of Indalpur, Raja Sambhu Narayan Singh of Benares, and the Bijnor Agricultural Society.

A very interesting report has been received from *Pandit Ajudhiya Parshad*, who has tried a very large number of new seeds, such as American and Jaunpur maize, English and native carrots, onions, turnips, mangold-wurzel, chaffa (ground-nut), reana, American and Egyptian cotton, American tobacco, sorgham. The staples which seem to have the fairest prospect of success are Meerut wheat, sorgham, American cotton, mangold-wurzel, and Guinea-grass, but, as might have been expected, many experiments proved failures. The Pandit found a more certain source of profit from a combination of the use of the Bihia mill with a new method of dealing with the sugar-grower. Instead of buying the pressed juice from the cultivator, as is the prevailing custom in Rohilkhand, he makes arrangements for the purchase of the cane itself, and conducts all the operations which succeed the cutting and carrying of the crop at his own risk. He reports that the return on his outlay has this year been more than 20 per cent.

He has raised ten calves by a Bánda bull supplied him by the Agricultural Department, and an Arab donkey stallion had fertilized a few country ponies, but he finds the villagers generally averse to breeding mules.

Rája Sambhu Narayan Singh of Benares reported some interesting experiments in bone-dust and cattle urine preserved for manure. He has found that the Kaisar plough increases the produce of sugarcane, and contemplates the construction of a large number of wells.

The Bijnor Agricultural Society, founded by Rája Jagat Singh of Tajpur, takes a very intelligent interest in all problems connected with improved agriculture and, besides being a constant

correspondent, sends in periodical printed reports of its operations. *Kunwar Harnam Singh Ahluwalia*, who manages the estates of his nephew, the Rája of Kapurthalla, held a cattle show at Bundi on the occasion of the Dasahra festival in October, and distributed prizes for the best exhibits. Five small arboricultural nurseries have been made to supply trees to plant round the irrigation wells on the estate and cultivators are encouraged to plant groves and roadside avenues.

The Mahâraja of Balrampur deputed one of his servants to live at the Experimental Farm and acquire such instruction as was to be given by an inspection of the kharíf operations.

On several of the *Court of Wards'* estates improved methods of agriculture have been introduced. At *Dubari* experiments with the Kaisar plough gave favourable results and experiments with the object of preserving cattle-urine for manure promised well. A new kind of well with a water-tight bottom and fed by percolation through dry laid bricks was found both cheap and effective, and has been adopted by Raja Jagat Singh of Tajpur with the same satisfactory results.

Mr. Crooke's home farm at *Awa* has been a partial success. Little progress was made with new staples, but more success was met with in the manufacture of undrained sugar. He has imported a professional sugar-boiler from Bihia, and the admirable *gurh* exhibited at Lucknow gained him the first prize in open competition. A large and promising breeding establishment is maintained by Mr. Crooke, and two young men have been sent to learn veterinary surgery at the Hápur Stud Farm. The very important operations in connexion with the reclamation of *úsar* and the construction of a large number of wells for the cultivators on his estate have been in the charge of Mr. Wilson, whose services were placed at the disposal of the estate by the Agricultural Department.

Rawatpur enjoys the advantages of close proximity to the Cawnpore Experimental Farm and a very intelligent manager. The Kaisar has been largely adopted. Three are in every-day use on the sír, and 37 more by the ordinary cultivators on the estate. Two Bihia mills have been bought and more will be sent

for. The sugar cultivation has in consequence spread from two to eight villages. Trials with new seeds have met with some success in spite of the fact that nearly a third of the crop was eaten by caterpillars. New Orleans cotton sown on 2¼ acres gave an outturn in December of 145lb. of clean fibre to the acre. Two new wells have been constructed for four buckets each and give an ample supply of water.

On *Karm Ali Khan's* estate, Meerut, a large number of imported seeds were tried, but they cannot be said to have been successful. The Collector frankly ascribes this to ignorance of agriculture on the part of his manager. Two Kaisar ploughs and some improved sieves are highly appreciated. Six Bihia sugar-mills were bought and are let out to the cultivators on the estate. The receipts during the year for their hire amount to Rs. 186-6-0, or more than 30 per cent. on the original outlay. Two wells have been built and two more are in course of construction.

Distribution of seed.—Select varieties of seeds were purchased and distributed. The list comprises Muzaffarnagar wheat, maize, sorgho, lucerne, Guinea-grass, cotton of eight different descriptions, tobacco, ground-nut, carrots, mangold, Cape oats, reana.

Káchi emigrants.—At the request of the Chief Commissioner of the Central Provinces a party of 17 of the industrious cultivators known as Káchis, whose families had originally been transplanted from Farukhabad to Cawnpore by Mr. Buck, were sent to setttle at Nagpur on the Government farm.

Cattle-breeding.—An imprest of Rs. 2,000 is placed at the disposal of the Agricultural Department for the purpose of purchasing good bulls at fairs, with the object of selling them in places where the breed of cattle requires improvement. Rája Jagat Singh of Tajpur and Pandit Ajudhia Parshad of Indalpur report that they have numerous calves by the stud bulls supplied to them.

Ghi-makers.—At the suggestion of the Government of India two experienced ghi-makers were persuaded to emigrate to Victoria. One of them suffered so badly from home sickness that he was sent back, but the other has been reported a great success.

A revised edition of Mr. Fuller's Agricultural Primer was published, and an Urdu translation sent to the Press. The Department

of Public Instruction intend to have it taught in normal schools and distributed as prizes.

An illustrated hand-book of the field and garden crops of these Provinces has been compiled by Mr. Duthie and Mr. Fuller. The first volume is ready for issue.

(*f*)—*Arboriculture.*

The total budget grant for the year was Rs. 53,300, of which Rs. 46,892-8-2 was actually expended, whilst the receipts amounted to—

	Rs.	a.	p.
From felling	21,976	7	10
„ lopping	6,658	13	2
„ fruit	5,054	8	4
„ other sources...	1,507	8	9
Total ...	35,197	6	1

The net cost therefore to Government was only Rs. 11,695-2-1. The year before the total expenditure was Rs. 38,740 and the net cost, after deducting receipts, Rs. 17,631. The increase in receipts this year is very striking, and bears witness to the growing interest taken by District Officers in the work. There is no reason to believe that it was anywhere prejudicial to the condition of the roadside avenues; it was rather the result of a more vigilant supervision, which prevented the sacrifice of legitimate sources of revenue.

The most satisfactory item in the receipts is the large sum derived from fruit and other produce. At Azamgarh sarpat grass, and at Cawnpore the common grass on the pattris, yielded a considerable profit, and something was realized from lac at Allahabad. In fact, there is no reason why, with a moderate amount of attention, the roadside avenues should not be made a valuable property, and not only support themselves, but yield a surplus that might be devoted to their extension. From this point of view, as well as on considerations of their service in times of scarcity, the planting of fruit and fodder trees is a matter of importance, and it is satisfactory to observe how large a proportion they bear to the total number of trees planted out this year.

The length of road under operation was 1,340⅛ miles and 442¾ miles of road were newly planted up. The number of trees planted during the year under report was 95,075, as against 65,938 of the preceding year, as detailed in the following statement:—

Names of trees.	1881-82.	1880-81.
Mango	25,574	20,082
Jamun	17,068	10,[illegible]03
Ficus	7,565	4,324
Shisham	10,071	9,410
Nim	10,251	3,309
Tamarind	1,495	1,173
Mahua	5,838	1,789
Miscellaneous	17,213	15,948
Total ...	95,075	65,938

The number of nurseries maintained during the year was 132, as compared with 143 in the preceding year. The number of plants at the end of the year was 309,953, as compared with 315,303 at the commencement. Seventy-three thousand nine hundred and twenty-five seedlings were contributed to the roads this year. The year before the number was 60,011. Three new groves were planted out during the year, and an area of 238 acres of old grove was under maintenance. The whole number of trees planted was 1,371. The attempt to enlist the co-operation of native gentry and zamíndárs, which was commended by Government in their review of last year's arboriculture report, has been continued with a varying measure of success in different districts. Rája Shankar Singh and Lala Awadh Narain in Etah, Lala Damodhar Das in Bareilly, Raja Mailap Singh and the young Rája of Oel in the Kheri district, as well as other native gentlemen, have each added a considerable number of trees to the roadsides. Four miles of road in Gorakhpur, which were planted and maintained on the Benares road by Lala Jagmohan Das, are reported to be in a very flourishing condition, and 4,269 trees have been planted by zamíndárs in Azamgarh.

Though great divergence of opinion continues on the question of concentrating or scattering nurseries, there appears to have been no difficulty anywhere in procuring an ample supply of new trees. There is, however, a general consensus of approval to the plan of

utilizing the compounds of roadside bungalows as nurseries and the employment of mális as chaukidars. It was generally made known that any who wished it would have trees delivered free of cost in the large central nursery at Lucknow, and it is believed that considerably over 15,000 saplings have since been disposed of. The total number of saplings in the nursery at the end of that year was 103,265. In connexion with the main nursery is a small exotic plantation, which is maintained by a separate grant of Rs. 400. Among a number of new importations, four sweet plums and 20 Arabian date palms are doing well, while 16 mahogany trees are making slow progress. There is a large stock of *Eucalypti*, of which the *resinifera* and *rostrata* are perhaps the most successful varieties.

In the small nursery at Gorakhpur, under the charge of Mr. Campbell of the Forest Department, it was again found that pineapples were effective in exterminating kâns grass, and linseed was used with the same result. The carobs there are doing well, but Mr. Campbell adds another to the innumerable reports of the utter failure of the *Prosopis glandulosa.* He has a good plantation of grafted mangoes and a few promising ground-nuts.

Detailed information was collected from the different districts on the best modes of fencing and irrigating saplings after planting out. The new *thala* and ditch recommended in the arboriculture report for 1879-80 is always spoken well of where the soil is fairly tenacious, whilst in the case of sandy soil thorn fencing is used with satisfactory results. The open brick-work makes an excellent *thala*, but its expense is an objection where a large number have to be made.

The reports of 14 districts where it has been tried are unanimous in recommending the *gharra* system of irrigation, and the further accounts of the irrigation cost, of which mention was made last year, confirm the opinion expressed as to its value.

4.—Manufactures.

The following notice of the manufactures of the provinces is restricted to (1) handicrafts concerned with the production of articles of artistic interest, and (2) factories worked by machinery No attempt has been made to deal with those handicrafts which

produce articles of material utility, the principal of which are the weaving of ordinary cotton cloth, the construction of the ordinary implements of husbandry, the moulding of earthen jars for holding water, and the manufacture of the metal vessels which serve the purposes of cooking and of holding food. These handicrafts are carried on to a greater or less extent in almost every large village in the provinces, and the collection of any reliable statistics of the number of workmen and the value of the outturn would be impossible without a very considerable outlay. The difficulty of gaining definite information of the extent to which these industries are practised would be still further increased by the fact that they often occupy only part of the artizan's time alternating with ordinary agricultural labor. So far as handicrafts are concerned, it was determined therefore to restrict enquiries to those engaged in the production of objects of luxury or art, since these are as a rule confined to one or two places, and their investigation offers no insuperable difficulty. The inquiries have been conducted by the two native traffic registration Inspectors attached to the Agricultural Department, who have supplemented the result of their own investigations by any information which was procurable from municipal offices. The points to which attention was principally directed were (1) the number of firms employing labour, with details as to number of first and second class workmen employed; (2) the number of independent workmen, first and second class; (3) the amount and value of the work turned out by a first and second class workman in a week; and (4) the origin of the craft and its past history and present prospects. Information under head (3) was collected as the most reliable basis available for ascertaining the approximate value of the annual outturn. Details as to process of manufacture did not seem required for a sketch, the principal object of which was to furnish some statistics of the present condition of these industries which would serve as a basis for comparison in future years.

The collection of information concerning the factories which are worked by machinery in these provinces was effected without much difficulty, the managers of all except the Cawnpore Woollen Mills having most courteously given the details which were required.

The figures which are shown for the Cawnpore Woollen Mills are therefore those for the preceding year (1880-81), when no objection was made to supplying them. The figures relating to the other factories are all for the year ending 31st March, 1882.

A.—Industrial Handicrafts.

Class I.—Wood work.—White-wood carving of Saháranpur.—This has become familiarised in the card-trays, picture-frames, paper-knives, &c., which are exposed for sale at the Meerut and Saháranpur railway-stations. The soft white wood which is used as material is that of a tree known as the *dhudhi* (*Holarrhena Antidysenterica*) which occurs in the Sewaliks and lower Himalayas. The designs are almost entirely of European origin, and are mostly floral, the vine-leaf pattern being specially common. The execution is as a rule very coarse, principally because it is only the cheaper articles which command a ready sale. Indeed, the makers state that the prices which they can obtain for good workmanship are less remunerative than those which are readily given for articles of inferior execution. A really well-carved tray cannot be turned out even by a good workman in less than ten days and will not sell for more than Rs. 3-8, while a less skilful craftsman can in the same time make three trays of less finish which will sell at Re. 1 apiece. The demand therefore affords a premium on bad work, and in consequence well-finished specimens can only be obtained when ordered previously. The art was started, it is said, by a couple of native carpenters some 30 years ago, but it now engages the time (in whole or part) of 48 workmen, six of whom are capable of tolerably high finish. The facility for procuring *dhudhi* wood has probably been the principal cause in securing the footing of the art at Saháranpur. The total value of a year's outturn may be estimated at between Rs. 4,000 and Rs. 5,000. The carvings are bought up by itinerant traders and retailed principally to Europeans in the neighbouring stations.

Carved ebony of Nagína.—Nagína is a town of the Bijnor district, situated at a distance of 22 miles from the foot of the Himalayas, whence the ebony required for the manufacture was formerly drawn. Since 1862, however, it has been necessary to have recourse to Central India, whence the wood is now imported

at a cost of from Rs. 5 to Rs. 16 per maund. The cost of the ebony formerly procured from the neighbouring district of Garhwál was, it is said, not more than Rs. 1 per maund, and it is a matter for surprise that the art has survived so great an increase in the cost of its material. The designs which are followed are all purely native in their character, and are many of them of a considerable elegance, conventional flowers and foliage being the commonest. The art is confined to carving out designs in relief, and open work, such as that of Guzerat, is not attempted. Although small articles, such as paper-knives, picture-frames, note-boxes, &c., command the largest sale, and are therefore made in greatest quantity, the workmen can, if necessary, adapt their art to tables, chairs, and other articles of furniture. After the carving process has been finished, *shellac* varnish is often used to harden the surface—not however rubbed in, like French varnish, but applied with a brush. The art is certainly one of the prettiest in the provinces, and specially striking when the ebony is mounted in silver, as, is often done with boxes or book-stands. The art is said to have commenced some 200 years ago, but to have owed much of its progress to a native of Multán who settled in Nagína. Details of the workmen at present employed on it are given below:—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
21	17	61	78	4	21	25	21	82	103

The value of the annual outturn may be put at about Rs. 27,000.

Wood-carving and wire inlaid work of Pilibhít.—The town of Pilibhít has obtained a name for carpentry, and possesses in the balconies and doors of its houses a more than usual share of the rough wood-carving which is so highly thought of by some art critics. The enormous trade in rice which passes between Pilibhít and Bareilly during the cold-weather months finds work for a very large number of carts, the manufacture and repair of which have, it is said, attracted the local talent from ornamental wood-

work, and has to some extent prejudiced the art of the town, while greatly adding to its material wealth. But during the rainy months trade is at a standstill; and the carpenters, finding leisure then from the more useful, employ themselves in the more ornamental, branch of their craft. The articles most commonly made are pattens or "*kharaons*," which are sold at from 8 annas to Re. 1-4-0 the pair. Carved work for house decoration is reported to be on the decrease. The art of carving was, it is said, introduced by the Nawâb Hafiz Rahmat Khan in 1764, who summoned a skilful stone-cutter from Dehli to direct the ornamentation of the Jama Masjid then under construction. In the hands of this man's pupils the art of carving was extended from stone to wood, which is *par excellence* the material for construction in the region in which Pilibhît is situated. Details of the men at present employed are given below, but it must be remembered that wood-carving only occupies a portion of their time.

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
18	7	16	23	9	12	21	16	28	44

In addition to ordinary wood-carving the art of inlaying wood with brass wire (*tar kashi*) is practised at Pilibhît, though with not such success as at Mainpuri, whence the art is said to have been derived in 1821. The wood used for the purpose is *shisham*, and must be extremely well seasoned, the dark heart-wood of the tree being preferred. Like plain carving, *tar kashi* is rather a resource for months in which more profitable work is not forthcoming. The number of men who are able to inlay is shown below :—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
17	6	14	20	3	4	7	9	18	27

The total value of the wood-carving and wire inlaid work annually turned out at Pilibhít cannot be even approximately ascertained, owing to the irregularity with which the work is carried on It does not probably exceed Rs. 3,000.

Wire inlaid wood-work (tar kashi) of Mainpuri.—This is undoubtedly one of the most elegant arts in the provinces, consisting in the inlaying of dark *shisham* wood with thin strips of brass wire, forming patterns which are generally of very good design and often of extreme complexity. The home of the art is said to be the town of Kurauli, situated about 12 miles from Mainpuri, from which the artisans were summoned to the latter place by its local Rája. The articles most commonly made are wooden pattens (or *kharaons*), which are often fitted with an ivory flower held between the toes, and which is opened and shut by a spring as the foot is placed on the ground or raised from it. A demand only exists for the coarser kinds of workmanship, and fine workmanship might have been in danger of altogether dying out had it not been for the encouragement afforded by Mr. F. S. Growse, C.I.E., when stationed in the district. The Agricultural Department, believing that a regular demand for good work is all that is required to stimulate its production, has endeavoured with some success to introduce the art to the notice of the English market, and a small factory has been working for the past two years in Mainpuri, which has supplied no less than Rs. 3,255 worth of goods to Government for export to Bombay or London. Details of the workmen at present working at *tar kashi* are given below :—

Number of firms employing labour.	Number of workmen.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class	Total.	1st class.	2nd class.	Total.
1	5	10	15	...	28	28	5	38	43

The single firm returned as employing labour is carried on by the chaudhri of the craft, who has started the small factory noticed

above. One of the first class workmen returned as "employed by firms" is in Government employ, having been entertained on a fixed salary, and placed under the supervision of the Civil Surgeon by Sir J. Strachey, who was desirous of taking effective measures for encouraging the art. Of the 28 second class artisans returned as working independently, 13 still reside at Kurauli. The value of the annual outturn may be put at Rs. 5,500, of which Rs. 1,600 worth is made to the order of Government.

Lacquered and varnished furniture of Bareilly.—The furniture of Bareilly has deservedly gained a name in the Provinces. Its distinctive feature is its decorative varnish (known as *kahrua*), which is laid on so as to represent metallic foliage or tracery on a black or white ground. The tracery may consist in either gold or silver leaf, or with a composition of tin and glue known as *nil*, and is especially pleasing if executed in gold on a white ground, when it presents the appearance of enamel. But in addition to this *kahrua* varnishing, French polishing is largely practised, with however not very conspicuous success. It is reported to have been started by a European officer shortly before the mutiny. The art of varnishing in *kahrua* is of very ancient date.

Details are given below of the number of workmen engaged in plain furniture-making, in *kahrua* varnishing, and in French polishing. The latter frequently make furniture as well as polish it; but varnishers in *kahrua* are reported to purchase ready-made the plain furniture they require:—

Industry.	Number of firms employing labour.	Number of artisans.								
		Employed by firms.			*Working independently.*			*Total.*		
		1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
Plain furniture-making ...	13	25	30	55	21	36	57	46	66	112
French polishing and French polished furniture-making.	18	13	42	65	...	...	...	13	42	65
Kahrua varnishing ...	10	7	18	25	4	13	17	11	31	42

The value of the annual outturn of plain furniture has been estimated as Rs. 19,000 of the *kahrua* varnishing applied to it as Rs. 9,000, and of the French polished furniture as Rs. 30,000.

Lacquered wooden toys, &c., of Ahraura.—The art of lacquering on wood is practised at many places in the provinces: the articles most commonly manufactured being ornamented legs for *charpoys*. Sikandarabad in the Bulandshahr district and the city of Agra turn out goods of a quality above the ordinary. Mention is only made of the lacquer-ware of Ahraura (a small town in the Mirzapur district, only 16 miles from Mirzapur city) as being perhaps the best instance of the art, the neatly constructed "nests" of little variously-coloured boxes being made here, as well as numbers of other toys much in demand for European children.

There are only three workmen capable of making the better class of toys, each of whom can turn out in a day a nest, or as it is called by natives a "*gauj*" of 50 boxes completely finished and coloured. The woods which are used are *koria (Phyllanthus)* and *sálai (Boswellia Thurifera)* which are imported from the forests in the south of the Mirzapur district.

The art was first started it is said 60 years ago.

Class II.—Metal work.—(A).—Work in Iron, Brass or Copper.—Najíbabad iron-work.—The city of Najíbabad in the Bijnor district is noted amongst other things for the manufacture of arms which was first started by the Nawab Najib Khán, who summoned workmen from Multán for the purpose. The quarter in which the artisans now live is still known by the name of the Multáni muhalla. The guns which were first made were all matchlocks, these have given way to percussion-caps, but here improvement has stopped. A gun barrel, three feet long, can be turned out by a first class workman in a week, and sells for Rs. 12.

Details of the labour at present engaged in the manufacture are given below:—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
3	6	5	11	...	...	...	6	5	11

The value of the annual outturn, including cost of material, may be estimated at Rs. 4,500.

There is a large manufacture of brass and bell-metal vessels both at Najíbabad and the neighbouring village of Gridava Sahpur; but this is to supply the ordinary domestic wants of the country, and is therefore excluded from notice here.

The engraved *metal ware of Moradabad* has attracted within late years almost as much attention as the brass ware of Benares, and most people will think with much better reason. The material of which the vessels are made is brass, but they differ from those manufactured at other places in the provinces, in being tinned over, after the same fashion as is the case with ordinary copper cooking utensils, and so are of a silvery instead of a yellow colour. The ornamentation is effected by graving through the coating of tin into the brass, and the patterns therefore appear in bright golden on a white ground. The vessels may be either left in this condition, or the gravings may be filled in with black colour, composed of a mixture of lamp-black and shellac by which the elaborate tracery is shown to very great advantage. The origin of the art is some what obscure, but there appears some reason to believe that it springs from the city of Haiderabad in the Deccan. But during the last two or three years a great impetus has been given by the exertions of Mir Imdad Ali, C.S.I., who started a school for the teaching of good workmanship and artistic designing to youths of the town. Metal manafactures, plain as well as graved, engage the time of no less than 1,455 workmen, 969 of whom are in the employ of 123 firms, and 486 work independently.

The artisans may be classified as below:—

Braziers, engaged in casting and turning	292
Polishers and tin-men (*kalaigars*)	62
Engravers and finishers	1,101
Total	1,455

The annual value of the braziers' work is estimated at 1¼ lakhs of rupees, of Rs. 85,000 worth of which are transferred to the polishers and engravers, who increase its value by their labours to over three lakhs of rupees. The total value of the annual outturn

plain and ornamented, may be hence put at the large figure of nearly 3½ lakhs of rupees.

Benares brass ware.—The popularity of this ware during the last few years has given an incentive to the manufacture of cheap goods of poor finish, and it is reported that the *average* quality of the engraving has certainly fallen off. There are indeed critics who will not admit that the best efforts of the present day can produce anything equal to the specimens of old brass ware with which a diligent search in native bazars is sometimes rewarded. The manufacture of engraved brass work forms, however, a comparatively insignificant part of the total brass working industry at Benares, which is by far the most important in the provinces. The materials—copper, tin, and zinc—are all imported from Calcutta; and of the total amount which these provinces receive, seven-tenths are engrossed by Benares and the towns in its vicinity. Street after street is found entirely consisting of brass-mongers' shops, filled with glistening piles of *lotahs*, cups, trays, and the white metal (*phul*) ornaments which are worn by women of the poorer classes. No attempt has been made to take a census of the total number of brass-workers. The number of those engaged on ornamental engraved wares is returned at 43, of whom 24 are employed in fashioning the vessels from sheet brass and 19 in engraving them. This is exclusive of the artisans who make the plain brass vessels on which the engraving is executed. All the engravers are employed by firms, of which there are seven, and there are no independent workmen in this branch of business. A good engraver is paid at the rate of Re. 1-8-0 per seer of metal engraved. The value of the annual production of ornamental brass ware is estimated to be about Rs. 60,000.

(*B.*)—*Gold and silver work.*—The city of *Lucknow* is the only place in the provinces which is noted for any distinctive art in the manipulation of the precious metals. In addition to the diamond-cut silver jewellery, of which the "Lucknow bangles" are a familiar example, there are two methods of using silver for decorating the surface of metal vessels, which are especially characteristic of Lucknow industry. In one, known as "*bidri*," thin silver leaf is hammered into the metal by a process resembling

that of *damaskening*; in the other, called "*zarbuland*" the surface of the metal is diversified with raised patterns, which are then covered with silver leaf. The metal which is used for the purpose is a soft alloy of copper, lead, and tin, the surface of which is blackened by immersion in a mixture of *sal ammoniac*, saltpetre, salt, and *blue vitriol*. The articles most commonly manufactured are plates, *surahis*, and *pandans*. Occasionally gilt silver instead of plain silver leaf is used in *zarbuland* work. The origin of the art is unknown, but since the word *bidri* is derived from the town of Bidar in the Deccan, it is probable that the art was started by workmen imported from Hyderabad territory by the Nawábs of Oudh. The number of workmen who are at present employed on *bidri* and *zarbuland* manufacture is shown below :—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
6	8	5	13	...	...	...	8	5	13

The value of the work turned out in a year is estimated at between Rs. 4,000 and Rs. 4,500.

The manufacture for which Lucknow is however most noted is its gold embroidery, the excellence of which is admitted by its export to almost every part of India. The silver which is used may be either plain or gilt. The metal is cast into long bars, and made over to a class of men known as *kandla kash*, for being gilt if necessary and drawn out into wire. The means used for this purpose are extremely rough, and consist of an iron grating with holes of decreasing size, through which the bar is successively drawn by the action of a wheel and chain. The result is made over to another class of wire-drawers, known as *tar-kash*, who with a similar but smaller apparatus draw it out to a fineness which is almost that of gossamer. The greater portion of the fine wire is then flattened

by being dexterously beaten with a hammer in the hands of the *tardobkiyas*, and is then ready for manufacture into *gota* (lace), *kalabathun*, *salma*, *sitara*, and a hundred other forms in which it is used for embroidery. *Gota* is made by interweaving the silver threads with silk, and is practically a braid in which the warp is silver and the woof is silk. The most beautiful form of *salma* is a delicate spiral, from portions of which *sitaras*, or little stars, are fashioned by hammering the rings of the spiral into one another: *kalabathun* is a twisted thread of silk and silver or silver-gilt wire, and is the most popular material for embroidery. Some idea of the present importance of these arts may be gained from the following figures, which give details of the number of men who gain their livelihood from working in each of the process noticed above :—

Process.	Number of firms employing labour.	Number of artisans.								
		Employed by firms.			*Working independently.*			*Total.*		
		1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
Casting bars of silver ..	1	1	1	2	...	...	...	1	1	2
Wire-drawing, *Kandla kashi* ...	12	15	23	38	...	...	..	15	23	38
Wire-drawing, *Tar kashi* ...	18	72	81	153	...	5	5	72	86	158
Wire-flattening (*tardobkiyas*) ...	22	65	67	132	...	...	...	65	67	132
Salma and *sitara* making ..	15	17	33	50	...	...	..	17	33	50
Kalabathun making ...	6	6	7	13	...	6	6	6	13	19
Silver braid weaving (*gota bafi*),	44	102	136	238	11	12	23	113	148	261
Stamping patterns on braid (*uttu sazi*).	9	8	14	22	...	1	1	8	15	23

Silver braid is commonly used as a border to dresses, trappings, &c.; *salma*, *sitara*, and *kalabathun* find their principal use in embroidery (*zardozi*), towards which their manufacture must be considered a preparatory stage. The substance on which the embroidery is worked is as a rule black velvet, and when well executed, the result is one of the most beautiful as well as of the most costly instances of the taste in designing and delicacy of manipulation, which have contributed to the reputation of Indian decorative

arts. The number of workmen at present employed on embroidery is given below :—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently*			*Total.*		
	1st class.	2nd class.	Total	1st class	2nd class	Total.	1st class.	2nd class.	Total.
42	138	229	367	20	42	62	158	271	429

These statistics are admittedly imperfect, but will, it is believed, be of some use as a standard of comparison in measuring the progress or decline of the art in future years.

The art is said to have been founded in the reign of the Nawáb Asaf-ud-daula, and flourished so long as Lucknow was the seat of a Muhammadan Government.

It is now reported to be yearly on the decline, the distribution of wealth under the British rule being less favourable to expenditure on articles of this description. It seems unfortunate that some encouragement cannot be found for the industry in providing the Army with gold lace of Indian manufacture.

An estimate of the value of the annual outturn has only been attempted in the case of silver braid, Rs. 2,50,000 worth of which is believed to be turned out in the year.

Class III.—Stone ware.—Agra mosaics.—These are sufficiently well known and need no description. The mosaics almost exactly resembles that of Florence in style and character, and borrows its designs from the walls of the Táj. Its origin in its present form dates from the construction of the Táj by Austin de Bordeaux in 1627, "and after almost dying out as a local industry on the dissolution of the Mogul empire, was revived about 30 years ago through the exertions of D. J. Murray, late Inspector-General of Hospitals,

Bengal" (*Birdwood's Industrial Arts of India, p.* 209). The white marble in which the mosaics are inlaid is procured from the quarries of Makráná in the neighbouring Native State of Jaipur. Most of the stones in the mosaics are procured from the Deccan. The present conditions of the industry is indicated below :—

Number of firms employing labour.	Number of artisans.									
	Employed by firms.				*Working independently.*			*Total.*		
	1st class.	2nd class.	3rd class.	Total	1st class.	2nd class.	Total.	1st class.	2nd & 3rd classes.	Total.
4	14	26	22	62	...	64	64	14	112	126

Under "third class workmen" are included cutters and sharpeners, who merely prepare the marble for inlaying.

The value of the annual outturn is believed to be about Rs. 15,000.

Pebble-work of Bánda.—The agate pebbles found in the bed of the river Ken, flowing close under the town of Bánda, are believed to have suggested the origin of this art, as well as to have supplied it with its principal material. Stones of various kinds and colours are now imported by the cutters from all parts of India ; but the most characteristic of the articles they manufacture are agate knife handles, paper-knives, studs, and box covers, the surface of which is often beautifully diversified by moss-like markings natural to the stone. The cutters themselves credit a jewel-cutter of Lucknow with having first made use of the pebbles of the Ken, and state that up to the mutiny the art was in a flourishing state, there being then eight firms engaged in it. Their number is at present reduced to two, employing 12 workmen, 8 of whom are of first class and 4 of second class skill, the value of whose work may be estimated at between Rs. 1,000 and Rs. 1,100 per annum.

The articles are sold to itinerent traders for being retailed, mostly to Europeans, in the neighbouring stations. The demand appears to be on the decrease, and the artisans are reported to

have hailed with satisfaction an opportunity which lately offered itself of manufacturing ancient stone weapons for visitors of archæological tastes.

Class IV.—Pottery—Azamgarh.—This is the polished black pottery, diversified with white patterns, which has found so much favour with art critics. Its manufacture seems to be indigenous to Azamgarh, although it is only within the last 30 years that it attained its present fineness of execution. It shows no symptoms of increase, since the art is confined to three men, who will not disclose their secret to others, and who have not been induced by the demand for their goods to work in other than a most leisurely manner. The annual value of their work is not believed to be more than Rs. 320.

Chunár makes a plain red unglazed pottery, which possesses some artistic merits in form. *Surahis* are the articles made in most number. The art affords employment to 16 artisans, the annual value of whose work is not over Rs. 1,100.

Aligarh.—The characteristic pottery of this place is made of kankar (carbonate of lime), which is like that of Azamgarh coloured black by the influence of cow-dung smoke in a closed oven. The vessels are decorated with fruit, flowers, &c., in relief, which are impressed in moulds and stuck on to the surface before baking. The ornamentation is altogether European, and may be considered out of harmony with the oriental vessels on which it is imposed. But the general effect is not unpleasing. The art was only started ten years ago, and at the present time gives employment to four men, who find their most paying market in travellers at the Aligarh railway station.

Amroha.—Brittleness and vulgarity are the leading characteristics of Amroha pottery, which has owed its origin and continuance entirely to native sympathies. The vessels are made of a tenacious black clay found near the town, and are moulded to an extreme thinness. They are then coloured white and dried in the sun, after which they are painted with a solution of red (lac) or blue (indigo) in gum, and embellished with patterns in silver leaf stuck on with gum and water. No glaze is used, and the ornamentation and the pottery itself dissolves away if water be placed in it.

The art was started some 150 years ago, but has been steadily on the decline for the last 30 years, the ornamental metal ware of the neighbouring city of Moradabad proving a formidable competitor.

At present there are eight firms employing labour.

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
8	9	8	17	1	2	3	10	10	20

The value of a year's production is believed to be about Rs. 200.

Rampur.—This differs from any of the preceding in being glazed. Rough glazed pottery is made at several places in the provinces, but that of Rampur is the only one of sufficient merit to be classed as an object of art or to be in any way comparable with the blue and white pottery of Multan. It differs considerably in its colouring from Multan pottery, the blues which are used being much lighter in shade and tinged with green. The manufacture of glazed pottery at Rampur dates from great antiquity, but it did not until within the last 30 years rise much above the level of that ordinarily made in the provinces. Its improvement is ascribed to the encouragement afforded by the Nawab of Rampur to a potter who was able to colour and glaze more effectively than his fellows, and this may perhaps be held a sufficient reason for the Nawab's enforcing the summary surrender without price of all stock in the workmen's hands whenever he may require it, as is reported to

occur at present. Details of the workmen engaged in the manufacture are given below.—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
8	8	12	20	2	2	4	10	14	24

The value of the annual outturn is not over Rs. 2,000.

The clay modelling of *Lucknow* deserves notice under this heading. This is best known to Europeans in the little figure models of Indian servants which are tolerably true to life, as well as executed with great neatness and finish. Models of fruit and vegetables are also made and, when coloured, are so true to nature as to be very tantalizing ornaments for a breakfast table. The art was introduced about one hundred years ago by a European in the service of Nawab Asaf-ud-daula and has no connection with the clay modelling of Krishnagarh in Bengal. It acquires a peculiar interest from the fact that it constitutes one of the few instances in which Indian craftsmen have been able to attain naturalness of form as well as delicacy of finish, and certain of the more skilled have been known to model from life the human face with no contemptible measure of success. At present 16 artisans are employed in model-making, 7 of whom are of first class and 9 of second class skill. The value of their annual outturn is about Rs. 3,500.

Class V.—Leather.—Apart from the shoes in ordinary use in the country the only leather manufactures which appear to deserve special notice are these of Saháranpur and Cawnpore, the former of which are distinguished by the peculiarity of their material and the latter by the magnitude of the scale on which they are conducted.

Saháranpur.—The most characteristic articles are those made of the skin of the Sambhar deer, and the proximity of extensive jungles affords a very probable reason for the origin of the manufacture. The skin can be dressed to almost the softness of chamois leather and forms an excellent material for slippers and gaiters; the latter are the articles most largely made and are

particularly affected by native officials of active habits, as a substitute for riding boots. Within the last 20 years the manufacture of trunks and portmanteaux from ordinary leather has been commenced, but has not as yet been able to rival the productions of Cawnpore. Details of the labour employed in both classes of work are as follows:—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class	2nd class.	Total.	1st class.	2nd class.	Total.	1st class	2nd class.	Total
4	3	3	6	3	30	33	6	33	39

The value of the annual outturn of work may be estimated at about Rs. 20,000.

Cawnpore.—It is only within the last 70 years that a manufacture has sprung up which has made Cawnpore leather work a household name in the provinces. The art has of course benefited enormously by the example of the Government ordnance leather factory, particulars of which are given further on. The constant opportunity of learning good methods of work which the factory affords to any leather-worker and takes service in it, coupled with a steady demand for saddlery for native cavalry requirements, has raised the manufacture to great prosperity, affording perhaps the only instance of the foundation of a large native industry in these provinces by the encouragement of the British Government. Details of the labour employed by private firms or working independently are given below :—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class	Total.
63	127	126	253	4	4	8	131	130	261

The estimated value of the annual outturn is a lakh and a half of rupees.

Class VI.—Cotton and Silk Fabrics.—With the exception of a few metal pots for cooking purposes and the ordinary implements of husbandry cotton cloth is the only manufacture which is used extensively by the mass of the people, and weaving occupies therefore the position of by far the most important industrial art of the country. The weaving of cotton yarn into cloth was unknown in Europe until the 13th, and did not gain a firm footing there until the 17th century, and so late as 1721 the English linen and woollen industries suffered so much from the competition of Indian cotton goods that the importation of the latter was strictly prohibited by law. The tables have now been turned, and it is the Indian cotton-weaver who suffers from the competition of Manchester machinery.

Unfortunately for him principles have also changed, and in the name of free trade he is forbidden to enjoy the protection afforded by even a small import duty. But it is only in towns that the injurious effects of this competition have been fully appreciated. The imports of cotton piece-goods into these provinces amount to five lakhs of maunds or 200 million yards a year, and this would only be sufficient for the clothing of four millions of people on the scale commonly followed by respectable townsmen earning between Rs. 10 and Rs. 30 a month. It is true that, in addition to piece-goods yarn is imported to the value of some 20 lakhs of rupees, but this can hardly be held to damage weaving interests, merely involving the substitution of one material for another. In the villages the weaver still holds his place and receives in grain a customary wage which has as yet been unaffected by English competition. But in towns like Cawnpore, in which facilities for importing European piece-goods have greatly lowered the price of cotton cloth, the condition of the hand-weavers is deplorable, and they probably form the mosti ndigent class of the industrial population. An enquiry into their condition in the city of Cawnpore conducted in 1876 elicited that the average daily earnings of a family were only 1½ anna, barely sufficient to purchase 3lb. of the coarsest grain, although it often had to suffice for the food and clothing of five or six persons.

The most notable of the cotton fabrics of these provinces is probably the *calico chintz of Farukhabad* and the neighbouring town of Kanauj, and this does not as yet exhibit any signs of decline. The material which is used by the printers may be either European or Native-made cloth, and since the distinctive feature in chintz manufacture is the stamping, it should more properly be treated of under the head of "dyeing," and is only for convenience sake noticed here. The cloth is prepared for stamping by a somewhat elaborate process of bleaching, and the colour is impressed by hand, by means of rectangular wooden dies. The patterns and colouring are often very effective and have commanded the admiration of many European critics. The number of workmen employed in calico-printing in Farukhabad and Kanauj is shown below:—

	Number of firms employing labour.	*Number of artisans employed.*			
		1st class.	2nd class.	3rd class.	Total.
Farukhabad ...	76	40	193	153	386
Kanauj ...	22	16	93	...	109

The only men working independently in Farukhabad are ordinary dyers (chhipis), who occasionally undertake printing of the coarsest description.

At Kanauj there are reported to be 16 independent workmen. The annual value of calico chintz manufactured at Farukhabad and Kanauj may be put at Rs. 1,25,000 and Rs. 60,000 respectively, but this includes the value of the cloth, and the value of the printing does not amount to one-tenth of the total.

It is the finer classes of weaving which have suffered most from the competition of English goods. A curious fact in connection with fine weaving is that it has often attained its greatest perfection in places remote from the tract in which the raw material is produced without any such evident reason as that afforded by the abundance of fuel in the centres of English cotton manufacture. The finest muslins were formerly woven at places in the west of Oudh and the Benares Division (amongst which Tanda in the Fyzabad district held a principal place), although the production of raw cotton is little or nothing in districts east of Cawnpore. This

evidently points to the art having originated from other than purely natural causes.

As a feeble compensation for the decline of the weaving of fine cotton fabrics, the last few years have seen the introduction of the manufacture of *check cloth* of various patterns which has originated in a demand for goods of this description amongst Europeans and Bengali clerks. Check cloth has for some years past been made at Ludhiana in the Panjáb of a quality which no weavers of these provinces have been able as yet to equal. Patterns were given to some weavers of Aligarh in 1878, and of Cawnpore in 1880, and in the former place the industry appears to have taken firm root, and is said to afford steady employment to five workmen, the value of whose work is put at over Rs. 1,000 per annum.

In Cawnpore it has not extended as yet beyond a single firm.

Azamgarh Silk and Satinette.—Although this industry is principally known to Europeans through the satinette (or *gálta*) of mixed silk and cotton, which forms a cheap and pleasing material for ladies' dresses, yet the production of this article is unimportant compared with that of the silk fabric known as *sangi*, which is much appreciated by Muhammadans as a material for *paijámas*. Both cultivated and wild (tassar) silk are used, being imported from Bhagalpur, Murshidabad and other places in Bengal. The origin of the art is not known, but it is at present carried on in two villages named Mubarikpur and Khairabad, distant 8 and 12 miles respectively from Azamgarh, and not in Azamgarh city itself. Details of the labour employed are given below :—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
65	53	262	315	6	2,162	2,168	59	2,424	2,483

The value of the annual production of *gálta* and *sangi* is estimated at 3½ lakhs of rupees.

Benares is the seat of the most important silk-weaving industry in the provinces, and its embroidered silks and brocades have gained a deserved notoriety, holding the second place for excellence after those manufactured at Ahmedabad. The brocades are woven of silk and silver or silver-gilt threads so disposed as to form patterns, the texture varying from the thickly woven *kamkhab* to the gauze-like fabric used for *sáris* and *dopattas*. The price of these manufactures certainly appears equal to their quality, good *kamkhab* selling for about Rs 125, and a *sári* or *dopatta* for about Rs. 35 the yard.

It has been noticed that the misery of the craftsmen of this country appears to increase with the value of the wares they produce, and the condition of the shawl-weavers of Kashmir is an often quoted instance of this. The condition of the *kamkhab* weavers of Benares would serve equally well as an illustration. A man who will turn out in a month a brocade worth Rs. 200 gains no more than a bare pittance of 2 annas a day, and this too although it is undoubtedly to the skill and delicacy which his fingers have gained by inheritance and practice that the value of his fabrics is in great measure due. The weavers are bound down by hopeless indebtedness to the firms who employ them, and their remuneration depends as little on the demand which may exist for their goods as if their condition was one of actual slavery. The following table indicates the number of weavers at present engaged on the manufacture of brocade :—

	Number of firms employing labour.	Number of artisans employed by firms.	Number of artisans working independently.
Kamkhab manufacture	138	757	15
Manufacture of *sáris* and *dopattas* ...	270	1,358	621

The value of the outturn depends very greatly on the amount of silver and silver-gilt thread which is used, and since this varies considerably, it is impossible to calculate the value of the annual production with even approximate accuracy.

Lucknow chikan or embroidered muslin is certainly one of the best known manufactures of the provinces and commands a

ready sale amongst both Europeans and natives. It is to some extent a *domestic* manufacture, *i e.*, carried on by women and children at their homes, and hence its price appears absurdly low in comparison with the immense amount of labour it represents. The patterns may be either embroidered in relief or form open work with even edges, and the cloth most commonly used for the purpose is native-made muslin or *tanzeb*. The industry is said to have been introduced from Bengal near the commencement of the present century, but has only become of any importance since the mutiny. The circumstances under which the manufacture is carried on render it impossible to obtain even an approximately correct return of the number of hands engaged upon it, but some idea of the magnitude of the industry may be gathered from the fact that there are over 1,250 persons who habitually gain their livelihood by it, more than half of whom are females. The value of the work turned out annually by these persons is about half a lakh of rupees.

Class VII.—Carpet manufacture.—The carpets which are made in these provinces may be subdivided into *pile* and *smooth woven*. The former may be made of either cotton alone or a mixture of cotton and wool, while the latter may be made either of silk, or of cotton, or of a mixture of the two. Excluding the carpet-weaving carried on in jails, the places in the provinces most noted for this manufacture are Mirzapur and Jhánsi, where both wool and silk are used as materials. Plain cotton carpets (*duris*, *satranjis*, and *galichas*) are made up at a number of towns in different parts of the provinces, of which Amroha may be cited as an example.

Mirzapur.—The manufacture of pile carpets is the speciality of this town, the warp being of cotton and the woof and pile of wool. The origin of the art has no been ascertained, but it is reported not to have assumed any importance until some 60 or 70 years ago. It is now in a very flourishing condition, the monthly sales often amounting in value to Rs. 18,000 or Rs. 20,000. Although the generality of the carpets made here are somewhat loose in texture and of coarser workmanship and more staring pattern than the best efforts of convict labour, yet good work can be obtained for good prices,

and for Rs. 6 or 7 a square yard very excellent and artistic carpets are procurable. There are three merchants, one European and two natives, who are engaged in the trade, and between them and the actual artisans there interpose a number of firms who distribute the work amongst the craftsmen, grant advances and intercept much of the profit. The weavers work by contract and not at daily labour rates. Their numbers are indicated below :—

Number of firms employing labour	*Number of artisans working on contract under firms.*		
	1st class.	2nd class.	Total.
25	85	115	200

The value of the annual outturn is estimated at half a lakh of rupees.

The carpet manufacture of Jhánsi is confined to the native town within Gwalior territory. Smooth woven carpets of silk and of a mixture of silk and cotton are made here as well as pile carpets of plain cotton, but the principal manufacture is that of woollen pile carpets with cotton warp, similar to those of Mirzapur, but of less elegant design and coarser workmanship.

The art is said to have been introduced by a Raja of Jhánsi, who brought some weavers from Mirzapur on his return from a a pilgrimage to Benares. At the present time there are 12 firms engaged in the manufacture, employing 37 weavers, 18 of whom are of first class and 19 of second class skill. The value of the annual outturn is estimated at Rs. 8,000.

Amroha.—Pile carpets are made here of plain cotton, and the industry possesses a special interest from its owing its origin to the dissemination of knowledge through jail discipline. It is reported to have been started about the time of the mutiny by a Muhammadan who had learnt carpet-weaving in the Meerut Jail. The colours most commonly combined are blue and white, and which are handled more artistically by the workmen than other hues. The carpets command a ready sale at prices which vary greatly according to quality, but reach as high a figure as Rs. 4-8 per square yard

for good work. Nine firms employ 25 weavers, of whom 16 are returned as of first class and 9 of second class merit. The value of the annual outturn is about 4,000.

By far the most beautiful carpets made in the provinces are manufactured by labour in jails, carefully chosen patterns, good materials, and strict supervision uniting to enable ordinary weavers to turn out productions which the most skilful carpet manufacturers of Persia might acknowledge with pride.

The extent to which this manufacture is carried on will be more particularly noticed under the head of jail industries.

Class VIII.—Paper and papier-maché.—The manufacture of paper from waste fibre of the flax, hemp or *sanai* (Crotalatia juncea) is of considerable antiquity in these provinces and at the present time is carried on to a greater or less extent in almost every district head-quarters for the supply of the vernacular Government offices. The industry is reported to have suffered considerably already from the competition of machine made Bally and Serampur paper and is likely to be affected still more injuriously by the recent establishment of paper mills at Lucknow. Kalpi and Jaunpur may be mentioned as places which are still noted for the quality of the paper they produce, and at the latter place the industry possesses a special artistic interest from the recent introduction of *papier-maché* manufacture.

This was effected by the Collector, Mr. G. E. Ward, who in 1879 imported three *papier-maché* makers from Kashmir and started a small factory under their instruction, funds having been provided by a special grant of Rs. 2,000, made by Government.

The Kashmiris have since returned to their own country, but the art appears to have taken root and now gives employment to 10 workmen, the value of whose annual outturn is about Rs. 4,000. The articles find a ready sale in the native market, *papier-maché* book covers being especially popular.

Class IX.—Scents.—The city of Jaunpur is further noted for the manufacture of *scent*, which is said to have been introduced from Persia in the days of the old Muhammadan dynasty. The

principal scents made here are obtained from the flowers of the jasmine, screwpine (Pandanas), and rose, and may be subdivided into *attars*, *arraks*, and *oils*, according as they are obtained (1) by distillation of the flowers in sandal oil, (2) by distillation of the flower in water, and (3) by communicating the scent of the flowers to the oilseed known as *til* or sesamum and then extracting the oil in the ordinary manner. Details of the men who find employment in this industry are given below :—

Number of firms employing labour.	Number of artisans.								
	Employed by firms.			*Working independently.*			*Total.*		
	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.	1st class.	2nd class.	Total.
9	29	34	63	15	19	34	44	53	97

The value of the outturn depends very greatly on the proportion in which the different kinds of scent are manufactured. A month's work of a skilful craftsman on *jasmine attar* for instance would be worth between Rs. 60 and 70, while if applied to the manufacture of *keora* (screw-pine) oil it would be more nearly represented by Rs. 300. Under these circumstances it is impossible to frame an estimate of outturn which would be in any way reliable.

B.—Factories.

A portion of the information comprised in the following abstract has been already furnished to the Government of India, for publication in one or other of the statistical tables relating to British India. It is however repeated here since it seems advisable to take the present opportunity of giving as complete a sketch as possible of the position occupied by industries which have been started by British enterprize and are for the most part maintained by British capital. With this view too close an interpretation has not been put upon the word "factory," and industries have been included such as those connected with the production of indigo

and tea, which can hardly perhaps be strictly termed *manufacturing*, but which occupy the same position as more legitimate factories in their relation to the commericial enterprize of the provinces. Some notice has also been given to jail manufactures, some of which deserve attention from an artistic point of view as well as on account of their commercial importance.

Excluding from consideration factories which are worked by Government there are five factories in these provinces which are worked in whole or in great part by steam machinery. These include two cotton mills, one woollen mill (all three at Cawnpore) one soap factory (at Meerut) and one paper mill (at Lucknow). Three of these are the property of joint stock companies and two (the Elgin cotton mills and the woollen mills) the property of private companies. The five mills furnish daily employment to between 2,300 and 4,200 labourers. The managers of three out of the five mills have declined to return the annual value of their outturn, and it seems unnecessary to hazard a conjecture which would have no greater value than that of a mere guess. The manager of the woollen mills has alone declined to furnish any information whatever.

The factories which fall next on the list are the Rosa sugar factory at Sháhjahánpur and the hill breweries at Naini Tal and Mussoorie. The former was originally the property of a private firm (Carew and Co.), but has within the last few years been transferred to a company with a capital of 16 lakhs.

Returns have only been procured for one out of the three breweries—that at Naini Tal, which belongs to a joint stock company with a capital of three lakhs of rupees. The other two breweries are at Mussoorie and are the property of private firms.

The remaining five descriptions of private factories on the list, *viz.*, those concerned with the production of lac, indigo, sugar, tea, tobacco, and silk, may be classed as employed rather in the refinement of a raw material than in the production of a manufactured commodity, and hence may perhaps be more appropriately associated with the agricultural than with the commercial interest. The *lac* industry is entirely concentrated in the town of Mirzapur, where

there are 17 factories at present working, two of which are owned by Europeans. The total capital employed in the manufacture is returned at over 25 lakhs of rupees, and the value of the annual outturn has been calculated to be Rs. 16,00,000. Almost four-fifths of the total capital employed is represented by the four factories which are in European or American hands. The industry is reported to be suffering severely from the fall in the price of lac dye which has been taken place in late years. The production of indigo is by far the most important of the manufactures included in the statement. It employs no less than 1,504 factories with an annual outturn of about 50,000 maunds dye, valued at some 90 lakhs of rupees. There is a striking contrast between the condition of indigo in these provinces and that in Tirhut in the proportion which native enterprize shows in the manufacture. The whole of the indigo exported to Calcutta from Tirhut is returned as made by Europeans, which is the case with only 13½ per cent. of that exported from these provinces. Indeed, out of the 1,504 factories working during 1881-82 in these provinces only 176 were held by Europeans, but this under-rates the real share which Europeans hold in the industry, since factories held by them are as a rule considerably larger than those in native hands. The number of pairs of vats returned as belonging to the 176 European factories is 1,366, while the 1,328 native factories only possess 7,574 vats. Vats attached to European factories are therefore 15 per cent. of the whole, and this agrees very closely with the proportion of European made to the total indigo cake exported (15) per cent., as deduced from the returns of the Calcutta market. The extension of canal irrigation seems leading to a great increase in the number of factories which were only returned as being 1,224 in the year preceding. The construction of new factories seems however to be now confined to native enterprize, and the annual fluctuations in the number worked by Europeans indicates merely the occasional extension of operations to outlying branch factories which return no profit except in favourable years.

The number of *tea* factories in the provinces is returned as 87, to which are attached 8,144 acres under the tea plant. The plantations are all situated in the hill tract of the provinces—in the

Dehra, Kumaun and Garhwál districts. There are no returns to show the exact annual produce, but it may be estimated at about 20 lakhs of pounds of which by far the greater portion is green tea manufactured for the Central Asian market owing to what appears to be an irrational prejudice. The Central Asian consumer so much prefers Chinese to Indian teas (and they are easily distinguishable by their colors) that he will pay twice as much for the former as he will for the latter. Through some not very clearly understood cause the demand for the tea at the plantation itself has entirely ceased during the last two years, though up to the end of March, 1882, no appreciable falling-off could be observed in the demand at Peshawar. The market is however seriously threatened, not only by the very heavy duty (Rs. 38 per maund) which the Russians have lately imposed on the boundary of Bokhara, with the object probably of opening up a direct route with China, but by the abolition of the 5 per cent. *ad valorem* duty which was levied on Chinese tea at Bombay up to the commencement of the present financial year. The Afghan war re-opened a new route for tea *viâ* Persia and Meshed which, though at present it is not very largely used, may have an appreciable effect on the prospects of tea-planters in these Provinces. The nearest and most natural outlet, that into Tibet and Nepal, is so closely barred by Chinese exclusiveness that not an ounce ever crosses the frontier. In their competition with Assam for the European or Australian market they are heavily handicapped by their distance from the coast, defective communications, and the heavy rates which the railways charge for the transport of tea.

The single *tobacco* factory in these provinces is in the hands of Messrs, Begg, Dunlop and Co. of Calcutta and is situated at Gházipur on land formerly occupied by the Stud Department, which has been leased by Government to the firm on favorable terms on condition that it is used for the production of tobacco. Since taking possession of the Gházipur land the firm have also acquired on lease the stud land and buildings at Pusa in Tirhut, where the climate has been found on the whole more favorable for tobacco cultivation than at Gházipur. The Gházipur land is however particularly well fitted for the production of certain classes of leaf and needs only a

satisfactory system of irrigation to develope into a profitable concern. The total production of cured leaf at both Gházipur and Pusa during the 1881-82 season amounted to 250,000lb., one-third of which was exported as cured leaf to England, the rest being kept for manufacture into smoking mixtures and cigars for consumption in India. The *silk farm* of Messrs. Lister and Co. at Dehra is also situated on land which has been conceded by Government with the object of encouraging a promising industry. So far as experiment goes favorable results have been obtained, but the enterprize has not yet passed the initiatory stage.

The Government Harness Factory at Cawnpore, Post-office Factory at Aligarh, and Canal Foundary and workshops at Roorkee appear to call for no special remarks. Their value to the country is considerably enhanced by the influence which their example exercises on native industry, and numberless harness-makers, carpenters, and metal-workers in all parts of the provinces ascribe the success of their craft to lessons learnt at these institutions. The Government Gun-carriage Factory at Fatehgarh and the workshops attached to the principal railway depôts have not been included in the abstract.

A return showing the value of the annual outturn of the different crafts carried on in the Jails of the Provinces closes the abstract.

Abstract indicating the position of the principal factories in the North-Western Provinces and Oudh during the year 1881-82.

I.—FACTORIES SUPPORTED BY PRIVATE ENTERPRIZE.

Description.	District.	Name of Mill factory industry.	Capital, if worked by a Joint-stock Company.	Nominal horse-power of engines.	Average number of persons employed daily (1881-82.)	*Yearly outturn* (1881-82).	
						Amount.	Value.
			Rs. a. p.			lb.	Rs.
Cotton mills ...	Cawnpore ...	Elgin Mills Company,	A private Company,	140	963	...	...
		Muir Mills ditto ...	10 lacs ...	60	1,034	...	...
Woollen mills ...	Ditto ...	Cawnpore Woollen Mills Company.	(*a*)	(*a*)	(*a*)	(*a*)	(*a*)
Paper mills ...	Lucknow ...	Lucknow Paper Mills Company.	7,52,833 0 9½	116	245	28,612	4,04,250
Soap factory ...	Meerut ...	The N. W. Soap Company, Limited.	74,437 0 0	100	10	...	25,000
Sugar factory ...	Sháhjahánpur ...	Rosa Sugar Factory,	16,00,000 0 0	...	1,058	...	14,00,000
Breweries ...	Kumaun ...	Naini Tal Brewery Company.	3,00,000 0 0	...	83(*b.*)	...	1,60,000
	Dehra Dun ...	Mackinnon and Co. ...	(*c*)	(*c*)	(*c*)	...	(*c*)
		Whymper and Co. ...	(*c*)	(*c*)	(*c*)	...	(*c*)
Lac factory ...	Mirzapur ...	17 factories (four of which are in European or American hands).	25,13,400 0 0	Amount of stick lac worked up. 1,38,300	2,685	Shell lac 57,770, lac dye 9,300.	16,00,000

(*a.*) The manager has declined to furnish any information this year, on the ground that a Government official has been permitted to manage the Egerton Woollen Mills in the Pánjab.
(*b.*) During brewery season, *i. e*, from September to April; during rest of year 30 hands.
(*c.*) No information could be elicited.

Abstract indicating the position of the principal factories in the North-Western Provinces and Oudh, during the year 1881-82—(continued.)

I.—FACTORIES SUPPORTED BY PRIVATE ENTERPIZE—(*concluded.*)

Description.	District.	Name of Mill factory industry.	Capital, if worked by a Joint-stock Company.	Nominal horse-power of engines.	Average number of persons employed daily (1881-82)	Yearly outturn (1881-82). Amount.	Yearly outturn (1881-82). Value.
			Number of pairs of vats in use.	Amount of indigo plant consumed.	(*d*)	lbs.	Rs.
Indigo factories,	Saháranpur ...	5 factories (all natives)	17	16,907	136	56	
	Muzaffarnagar ...	1 „ (native)	4	12,000	32	28	
	Meerut ...	26 „ (1 European)	186	5,50,159	1,488	1,029	
	Bulandshahr ...	146 „ (3 do.)	930	229,0,702	7,440	5,499	
	Aligarh ...	193 „ (10 do.)	1,602	40,05,583	12,816	8,296	
	Moradabad ...	2 „ (native)	7	6,310	56	15	
	Bareilly ...	12 „ (do.)	73	1,17,176	584	487	
	Pilibhit ...	1 „ (European)	9	50,570	135	128	
	Budaun ...	36 „ (14 do.)	219	5,23,448	1,752	1,164	
	Shahjahánpur ...	6 „ (5 do.)	45	2,67,000	675	758	
	Muttra ...	25 „ (all native)	130	2,31,580	1,040	578	
	Agra ...	31 „ (do.)	341	2,37,271	2,728	713	
	Mainpuri ...	153 „ (11 European)	840	20,59,320	6,720	3,798	
	Farukhabad ...	97 „ (10 do.)	736	12,64,735	5,888	2,701	
	Etáwah ...	139 „ (24 do.)	753	24,83,236	11,295	4,872	
	Etah ...	110 „ (13 do.)	763	13,82,167	6,104	2,924	
	Cawnpore ...	82 „ (4 do.)	490	12,24,210	3,920	2,514	
	Allahabad ...	14 „ (6 do.)	132	2,73,498	1,056	836	
	Jaunpur ...	73 „ (9 do.)	437	3,47,102	3,496	1,200	
	Azamgarh ...	223 „ (14 do.)	356	9,31,673	2,848	2,830	
	Mirzapur ...	12 „ (8 do.)	80	1,20,273	640	535	
	Benares ...	13 „ (1 do.)	89	1,98,906	912	546	

	Ballia ...	9 „ (4 do.)	23	36,910	184	87	
	Gorakhpur ...	31 „ (17 do.)	177	6,42,163	2,655	2,655	
	Ghâzipur ...	38 „ (14 do.)	316	2,19,991	2,528	642	
	Unao ...	1 „ (Native)	14	395	112	1	
	Fyzabad ...	10 „ (do.)	53	1,36,706	424	511	
	Gonda ...	1 „ (do.)	4	30,000	60	59	
	Hardoi ...	2 „ (both European)	13	46,652	195	124	
	Kheri ...	1 „ (European)	2	10,030	30	32	
	Sultanpur ...	4 „ (Native)	36	12,511	288	54	
	Partabgarh ...	7 „ (4 European)	63	63,442	504	272	
	Total ...	1,504 { 176 European, 1,328 Native, }	8,940	19,592,626	78,453	(e) 45,944	
				Area under tobacco, tea, or mulberry. Acres.			
Tea factories ...	Kumaun ...	33 plantations ...	...	3,342	...	About five lakhs of lb.	
	Garhwâl ...	21 ditto ...	...	634	...	...	
	Dehra ...	33 ditto ...	(g.)	(g) 4,468	...	8,59,847	
Tobacco factory,	Ghâzipur ...	Messrs Begg, Dunlop and Co.	64,000	325	168	110,000	
Silk do. ...	Dehra ...	Messrs. Lister and Co.	(h.)	(h)	(h)	(h.)	

(d.) The average number of hands employed in each factory has been obtained by calculation, since the returns are either blank in regard to this point or are wildly discrepant. Careful enquiry has shown that a factory of 10 vats, each of 100 maunds capacity, employs about 150 men, and hence the number and capacity of vats which has been returned for each factory is the basis on which calculations have been made. The hands are only employed during the working season which lasts for about 45 days only.

(e.) The traffic returns indicate the outturn of the year (1881-82) as amounting to 54,584 maunds and this is probably correct.

(f) This is exclusive of the firm's outlay on their Pusa factory.

(g.) 250 acres of this was calculated by tenants and the crop purchased.

(h.) The enterprize has not yet emerged from the condition of experiment.

Abstract including the position of the principal factories in the N.-W. Provinces and Oudh during the year 1881-82—(concld).

II.—FACTORIES MAINTAINED BY GOVERNMENT.

Description.	District.	Name.	Nominal horse-power of engines.	Average number of persons employed daily.	Value of raw material worked up.	Value of manufactured out-turn.	Cost of factory to Government.
					Rs.	Rs.	Rs.
Harness factory ...	Cawnpore ...	Government harness factory.	24	900	5,00,000	7,50,000	
Engineering workshops.	Aligarh ...	Post-office factory ...	...	751	1,77,226	2,95,954	29,547
	Roorkee ...	Canal foundary ...	47	860	3,60,000	5,58,000	
			Number of jails in which industry is pursued.				
Jail industries.							
Class I. ...	...	Aloe fibre making ...	5	*30	163	472	
		Munj twine making ...	33	856	8,285	19,608	
		Rope making ...	12	109	1,157	2,391	
		Gunny-making ...	24	338	6,623	13,265	
		Net-making ...	2	6	172	275	
		Total ...	76	1,339	16,400	36,011	
Class II. ...	...	Basket making ...	5	4	61	114	
		Cane work ...	4	14	232	416	
		Total ...	9	18	293	530	
Class III. ...	...	Cloth weaving ...	49	1,293	63,486	92,968	
		Tent-making ...	1	7	3,759	4,979	
		Drugget (dori) making,	42	856	32,315	50,337	
		Wool-carding ..	1	312	25,082	32,926	
		Carpet (rug) making,	35	1,071	57,108	1,02,991	
		Blanket-making ...	49	956	42,059	56,544	

		Stocking-knitting ...	1	2	10	28
		Tailory ...	11	69	13,209	16,383
		Total ...	189	4,566	2,37,017	3,57,155
Class IV. ...	...	Skin-curing ...	1	7	194	617
		Shoe-making ...	8	14	2,164	2,958
		Total ...	9	21	2,358	3,575
Class V. ...	...	Carpenter's shop ...	10	26	2,107	3,158
		Blacksmith's shop ...	17	74	4,185	7,098
		Goldsmith's shop ...	1	2	239	271
		Tin factory ...	1	2	500	767
		Stool-making ...	1	3	122	213
		Total ...	30	105·2	7,154	11,507
Class VI.. ...	...	Paper-making ...	6	61	606	1,593
Class VII. ...	...	Lithography ...	4	32	2,740	3,162
		Printing ..	4	65	8,081	20,931
		Total ...	8	97	10,821	24,093
Class VIII. ...	...	Dyeing ...	12	53	13.649	1,934
Class IX. ...	...	Oil-pressing ...	35	131	10,653	15,334
Class X. ...	...	Lime-grinding ...	4	8	300	680
		Brick-making ...	8	159	7,591	15,955
		Pottery ...	20	282	4,270	10,039
		Total ...	32	449	12,161	26,674
Class XI. ...	...	Bakery ...	5	17	9,130	11,369
		GRAND TOTAL ...	411	6,857·2	3,20,242	4,89,775

* The figures in the column are only approximate.

5.—Forests.

Area and boundaries.—The areas under the control of the Forest Department in each Circle at the commencement and close of the year were as follows:—

Circles.	On 1st April, 1881.			Area in square miles on 31st March, 1882.			Increase or decrease.
	Reserved.	Protected.	Total.	Reserved.	Protected.	Total.	
Central ...	1,467	100	1,567	1,467	98	1,565	−2
Oudh ...	1,079	...	1,079	1,090	...	1,090	+11
School ...	767	...	767	769	...	769	+ 2
Total ...	3,313	100	3,413	3,326	98	3,424	+11

Besides the above, the Bánda forests were constituted a Forest Division in September, 1881. Their area is as follows:—

Area acquired by Government.		Area remaining to be acquired by Government.
Within the forest line.	Without the forest line.	
53,535·73 acres.	716 acres.	21,208·19 acres.

It is believed the 716 acres outside the forest line will soon be exchanged for land within the forest line, and negotiations for the acquirement of the 21,208·19 acres are proceeding.

The decrease of two square miles in the area of the protected forests of the Central Circle is explained to be due to the corrected calculation of the area of the forests of the Naini Tál Division by the Forest Survey Department. The increase of 11 square miles in the area of the reserved forests of the Oudh Circle is due to additions made to the Nawábganj forests of Gonda. The increase of two square miles in the area of the forests of the School Circle is accounted for by 1,430 acres having been added in Bashahr, while 34 acres—which were erroneously demarcated—have been excluded from Saháranpur.

As regards boundaries, considerable progress was made in the Central Circle during the year, where very little demarcation

work remains to be done, and it is expected that this will be completed in the current year. Rs. 2,979 were spent on demarcation work in this Circle. In the Oudh Circle the progress made in boundary works consisted of about two miles demarcated, 101¼ miles of new ditching, 27 miles broad boundary cleared, and 1,509 posts erected. With the exception of Gorakhpur, the boundaries of all other forests are now laid down with posts or pillars, and ditching is being gradually carried on where practicable, except in land situated within the forests trans-Sárda, about which there is at present a suit in the Civil Court. In the School Circle Rs. 2,539 were spent on boundary works, principally in the erection of new and intermediate pillars, and in clearing old lines. Some disputed boundary questions in this Circle are still under the consideration of Government.

Protection and improvement.—The results of prosecutions for breach of forest rules in the year under review and in the preceding year are shown in the following table:—

Circle.		*Prosecutions.*		*Convictions.*	
		Number of cases.	Number of persons.	Number of cases.	Number of persons.
Central ...	1880-81 ...	388	828	336	663
	1881-82 ...	353	734	331	656
Oudh ...	1880-81 ...	36	59	30	52
	1881-82 ...	71	147	53	126
School ...	1880-81 ...	43	121	39	109
	1881-82 ...	69	143	50	94
Total ...	1880-81 ...	467	1,008	405	824
	1881-82 ...	493	1,024	434	876

The offences were mostly of a petty nature, such as unauthorised felling or appropriation of wood or forest produce, grazing without permission, non-delivery of passes, &c.

Construction of communications and buildings.—The sums expended on the construction of roads, bridges, buildings, wells, &c., were as follows, compared with the sums spent in the preceding year:—

Circle.		Roads and bridges.	Buildings.	Other works.	Total.
		Rs.	Rs.	Rs.	Rs.
Central ...	1880-81 ...	20,480	6,971	28	27,479
	1881-82 ...	22,040	7,831	358	30,229
Oudh ...	1880-81 ...	11,966	18,688	3,274	33,928
	1881-82 ...	11,796	21,291	2,972	36,059
School ...	1880-81 ...	7,254	3,029	35	10,318
	1881-82 ...	7,663	16,439	524	24,626
Total ...	1880-81 ...	39,700	28,688	3,337	71,725
	1881-82 ..	41,499	45,561	3,854	90,914

In the Central Circle Rs. 8,488 were spent on new roads, Rs. 17,019 in repairing existing roads, and Rs. 781 in repairing fences. In the Oudh Circle 60 miles of new roads were made and 735 miles of old roads were kept in order, repaired, and improved; 5 new bridges were made, 38 repaired, and 34 *nála* banks sloped to allow of traffic; 12 new rest-houses were completed during the year and 6 are in progress; 19 new masonry wells were completed, 6 are in progress, and 44 wells have been cleared out. In the School Circle 82 miles of new roads and paths were constructed in the Dún and Jaunsár Divisions, and the necessary repairs were executed throughout the Circle. The buildings of the Forest School at Dehra were completed; and 32 permanent, 40 semi-permanent, and 49 temporary buildings have been constructed and are maintained for the use of Forest Officers and their subordinates.

Reproductive measures.—Plantations.—The area covered by plantations was—

	On 1st April, 1881.	*On 31st March*, 1882.	*Increase or decrease.*
	Acres.	Acres.	Acres.
Central Circle ...	1,047	1,178	+131
Oudh Circle ...	563	791	+228
School Circle ...	1,201	1,361	+160

and the amount expended was—

	1880-81.	1881-82.
	Rs.	Rs.
Central Circle	18,322	21,961
Oudh Circle	7,317	9,459
School Circle	18,298	20,414

In the Central Circle 131 acres were added in the Naini Tál and Jhánsi Divisions at a cost of Rs. 3,639 ; in the Oudh Circle 228 acres were added in the Bahraich and Gorakhpur Divisions at a cost of Rs. 2,142 ; and in the School Circle 160 acres were added at a cost of Rs. 2,839.

The Ránikhet Nursery continued to do excellent work, and distributed 13,082 forest trees to the Cantonment Magistrate at Ránikhet, the Forest Department, Naini Tál, and to house-holders and villagers; and also 6,078 fruit trees to house-holders, villagers and others: 365,296 forest trees and 96,029 fruit trees are in stock in the nursery.

In the three forest gardens of the School Circle much work was done during the year in sowing seed of both indigenous and exotic trees.

Fire conservancy operations.—The area in which protection from fire was attempted, that in which it failed, that successfully protected, and the total cost of protection up to 30th June, 1882, were as follows, the figures for 1880-81 being also given :—

Circles		Area attempted to be protected.	Failure	Actually protected.	Cost.
		Acres.	Acres.	Acres.	Rs.
Central ...	1880-81 ...	215,558	11,345	204,213	60,836
	1881-82 ...	256,809	17,221	239,588	77,200
Oudh ...	1880-81 ...	178,619	4,865	173,754	30,546
	1881-82 ...	182,190	32,660	149,530	39,712
School ...	1880-81 ...	113,639	988	112,651	25,569
	1881-82 ...	141,854	5,661	136,193	33,162
Total ...	1880-81 ...	507,816	17,198	490,618	116,951
	1881-82 ...	580,853	55,542	525,311	1,50,074

There was thus a considerable increase in activity under fire conservancy operations, the area attempted to be protected having risen from 507,816 acres to 580,853 acres, that successfully protected from 490,618 acres to 525,311 acres, and the expenditure from Rs. 1,16,951 to Rs. 1,50,074. Out of 22 fires in the Central

Circle, two, by which 40 acres were burnt, were apparently lighted intentionally; 13, by which 4,729 acres were burnt, were either accidental or the origin was not known; four, and the most destructive of all, burning 12,151 acres, were from fires which crossed the outer fire-lines from outside jungles; and three, burning 301 acres, were fires which spread from lime-burning or fence-making. The last two classes of fires ought, with proper care, to be avoided, and this has been impressed on Divisional Officers. As the season was generally very unfavourable for fire conservancy, owing to the want of rain, the results on the whole may be considered satisfactory.

The outturn of timber and other produce cut and collected by Government agency during the year is given for each Circle as below:—

CENTRAL CIRCLE.

	Number or quantity.	*Cubic feet.*
Sál logs	498	26,179
Haldu logs	4	156
Chír logs	2,740	22,067
Deodar sleepers	38,515	51,353
Sál karis	15,638	25,380
Haldu karis	1,351	2,196
Sein karis	30,330	48,592
Chír karis	3,097	5,138
Jamún karis	1,023	1,651
Dhauri karis	2	3
Kokat karis	5,936	9,653
Sál planks	30	40
Chír planks	23,474	12,578
Sál joras and ballis	61	125
Sál scantlings	1,002	1,509
Chír scantlings	13	3
Chír ballis and posts	1,584	7,585
Shisham and kokat scantlings	11,049	18,889
Boxwood pieces	524	642
Ash pieces	2	6
Miscellaneous ballis	21,550	32,463
Dandia and dhuras	3,832	15,250
Jot	11	11
Total, timber ...	162,266	281,469

	Number or quantity.	Cubic feet
Firewood	152,418 maunds.	
Charcoal	7,744 ditto.	
Bamboos	1,248,847	
Kiras	3,948	
Kurias	301,507	
Hides	246	
Lime	4,054 maunds.	

Confiscated drift and waif wood.

	Number or quantity.	Cubic feet.
Pieces	3,175	8,003
Firewood	10 maunds.	
Bamboos	440	
Wooden pots	8	
Mats	16	
Skin	1	

OUDH CIRCLE.

	Number or quantity.	Cubic feet.
Sál logs	3,908	156,320
Sissu logs	531	13,304
Asna logs	134	7,392
Sál sleepers	6,265	6,439
Dhao axles	97	
Canoes or boats	191	
Miscellaneous poles	168	
Charcoal	1,010 maunds.	
Mahua flowers	1,311 ditto.	
Drift timber	1,447	
Total ... No. ...	12,741	183,455
Total ... Maunds ...	2,321	

SCHOOL CIRCLE.

	Number or quantity.	Cubic feet.
Trees and poles (thinnings)	38	66
Deodar logs	329	5,576
Fir logs	364	7,208
Other logs	44	345
Boxwood pieces	718	925
Deodar sleepers	93,827	222,107
Other scantlings	7,710	8,506
Tors and churans	3,718	5,229
Sándan ploughs	385	602
Miscellaneous pieces	806	1,466
Total, timber ...	107,939	252,030

	Number or quantity.	Cubic feet.
Firewood	...	83,733 solid
Charcoal	243 maunds.	
Bamboos	138 scores.	
Honey and wax	12 seers.	

The timber and other produce received from forests in sale depôts during the year was as follows:—

CENTRAL CIRCLE.

	Number or quantity.	Cubic feet.
Timber	109,676	175,300
Firewood	120,383 maunds.	
Charcoal	7,744 ditto	
Bamboos	262,209	
Kiras	3,948	
Kurias	33,860	
Lime	2,714 maunds.	

OUDH CIRCLE.

	Number or quantity.	Cubic feet.
Timber	3,000	148,722
Charcoal	210 maunds.	

SCHOOL CIRCLE.

	Number or quantity.	Cubic feet
Timber	56,003	73,531
Firewood		136,365 solid.
Charcoal	42 maunds.	

Sales of timber and other produce cut and collected by Government agency were as follows:—

CENTRAL CIRCLE.

Sold from depôt.

	Number or quantity.	Cubic feet.
Timber	87,838	132,693
Firewood	117,857 maunds.	
Charcoal	7,495 ditto.	
Bamboos	242,175	

	Number or quantity.	Cubic feet.
Kiras	3,913	
Kurias	45,734	
Lime	1,923	

	Number or quantity.	Cubic feet.
Sold locally.		
Timber	23,043	46,432

Firewood	33,792 maunds.
Bamboos	976,638
Kurias	267,647
Wooden pots	8
Mats	16
Hides	247
Lime	3,465 maunds.

OUDH CIRCLE.

Sold from depôt.	Number or quantity.	Cubic feet
Timber and other produce	112,368 5,530 maunds.	121,161
Sold locally.		
Timber	2,046	7,085

Firewood	8,037 maunds.
Charcoal	1,010 ditto.
Mahua flowers	1,311 ditto.
Total, maunds ...	10,358

SCHOOL CIRCLE.

Sold from depôts.	Number or quantity.	Cubic feet.
Timber	50,768	67,327

Firewood	141,148 solid.
Charcoal	42 maunds.

Sold locally.		
Timber	5,668	9,051

Firewood	3,400 solid.
Charcoal	494 maunds.
Bamboos	138 scores.
Honey and wax	12 seers.

The annual account of timber and other produce cut or collected by Government agency and brought to sale depôts or sold locally during the year is given as follows for each Circle :—

CENTRAL CIRCLE.

	Number or quantity.	Cubic feet.
Balance at commencement of year.		
Timber	25,805	59,001
Firewood	2,296 maunds.	
Charcoal	7,566 ditto.	
Bamboos	10,910	
Kiras	640	
Kurias	19,865	
Baskets	94	
Received from the forests in depôts.		
Timber	109,676	175,300
Firewood	120,383 maunds.	
Charcoal	7,744 ditto.	
Bamboos	262,209	
Kiras	3,948	
Kurias	33,860	
Lime	2,714 maunds.	
Received from the forests and sold locally.		
Timber	23,043	46,432
Firewood	33 792 maunds.	
Bamboos	976,638	
Kurias	267,647	
Wooden pots	8	
Mats	16	
Hides	247	
Lime	3,465 maunds.	
Received by transfer from sale depôts.		
Timber	1,228	2,240

The total amount of timber and forest produce for disposal was accordingly—

	Number or quantity.	Cubic feet.
Timber	159,752	282,973
Firewood	156,471 maunds.	
Charcoal	15,310 ditto.	
Bamboos	1,249,757	
Kiras	4,588	
Kurias	321,372	
Baskets	94	
Wooden pots	8	

	Number or quantity.	Cubic feet.
Mats	16	
Hides	247	
Lime	6,179 maunds.	

This was accounted for as follows :—

Removed by purchasers from depôts.

	Number or quantity.	Cubic feet.
Timber	87,838	132,693
Firewood	117,857 maunds.	
Charcoal	7,495 ditto.	
Bamboos	242,175	
Kiras	3,913	
Kurias	45,734	
Lime	1,923 maunds.	
Sold locally.		
Timber	23,043	46,432
Firewood	33,792 maunds.	
Bamboos	976,638	
Kurias	267,647	
Wooden pots	8	
Mats	16	
Hides	247	
Lime	3,465 maunds.	
Lost or written off as useless: used by the Department.		
Timber	1,520	1,137
Charcoal	867 maunds.	
Lime	132 ditto.	
Transferred to other sale depôts.		
Timber	1,228	2,240
Balance at close of year.		
Timber	46,123	100,471
Firewood	4,822 maunds.	
Charcoal	6,948 ditto.	
Bamboos	30,944	
Kiras	675	
Kurias	7,991	
Baskets	94	
Lime	659 maunds.	

The timber and other produce cut, collected, and removed from the forests by consumers or purchasers, including pasture, the amount of revenue thereon, and the amount actually realised during the year, are shown as follows for each Circle:—

Central Circle.

Description.	Number or quantity.	Amount of revenue.	Amount actually realised.	Remarks.
		Rs.	Rs.	
Timber (cubic feet) ...	538,092	1,81,072	1,81,072	
Charpoys	198	12	12	
Ghingaru sticks ...	...	5	5	
Kurias	20,200	50	50	
Firewood (maunds) ...	168,486	9,798	9,648	
Charcoal (maunds) ...	157	52	52	
Ghingaru sticks ...	..	5	5	
Bamboos	19,534,281	75,855	75,855	
Ringals (head-loads) ...	201	25	25	
Grazing	...	21,418	21,375	
Other minor produce*...	...	32,226	31,104	*Includes 128 kiras and 91,540 kurias, the rest of the minor produce consists of articles too insignificant and numerous to detail.
Total revenue of Circle under II.	...	3,20,518	3,19,203	

Oudh Circle.

Description.	Number or quantity.	Amount of revenue.	Amount actually realised.
		Rs.	Rs.
Timber (cubic feet)	332,327	99,138	86,788
Firewood and charcoal (maunds) ...	235,815	16,928	16,873
Grazing	175,357	33,958	32,948
Bamboos	125	8	8
Minor produce	...	37,420	34,131

Including some other items, the total revenue of the Circle was Rs. 2,08,293, and amount actually realised Rs. 1,81,845.

Central Circle.

Description.	Number or quantity.	Amount of revenue.	Amount actually realised.
		Rs.	Rs.
Timber (cubic feet)	55,810	53,980	51,219
Firewood (maunds)	...	8,054	8,054
Charcoal (maunds)	...	467	467
Bamboos (scores)	35,062	9,007	9,007
Grazing	84,454	25,132	25,132
Minor produce	...	11,684	11,476
Total ...	...	1,08,324	1,05,355

To the above amounts may be added Rs. 1,386 on account of drift and confiscated wood. The number or quantity given above does not represent the whole of the sales corresponding to the revenue, because the amounts under farming leases cannot at present be given, and there are other instances in which the quantities cannot be stated. Free grants of produce are also not included. The system of granting farming leases for the collection of revenue, principally on dead timber, firewood, bamboos, and minor produce, was continued and found generally to lead to satisfactory results. Forty-one such leases were given at an aggregate total of Rs. 22,358.

Revenue derived from, and expenditure incurred on, timber and other produce sold to public departments from depôt during the year. —The results of transactions with other departments are summarised below :—

Amount supplied.	Amount of revenue due, received, and outstanding.			*Cost to Forest Department.*		Surplus.
				Timber expenses under A. I.	Quota of expenses chargeable against timber.	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
	CENTRAL CIRCLE.					
	63,015	62,952	63	35,148	5,136	22,731
	OUDH CIRCLE.					
2,056,680 cubic feet and 289 pieces.	46,568	44,758	1,809	18,422	4,028	24,118
	SCHOOL CIRCLE.					
	1,21,540	1,21,202	338	94,834	10,440	16,266

The value of the timber and other produce on hand at the commencement and close of the year, and also of the live and dead stock, is shown in the following statement:—

Oudh Circle.

Description.	On hand at commencement of year.			On hand at close of year.			Increase or decrease in value.
	Number.	Cubic feet.	Value.	Number.	Cubic feet.	Value	
			Rs.			Rs.	Rs.
Timber ...	30,592	64,145	58,258	46,123	100,517	93,453	+35,195
Firewood and charcoal.	...	...	8,076	...	...	8,782	+706
Live stock—							
Elephants ...	8	...	14,000	9	...	14,500	+500
Bullocks ...	30	...	483	32	...	523	+40
Dead stock ...	26,437	...	73,949	27,978	...	78,954	+5,005
Total ...	...	...	1,54,766	...	...	1,96,212	41,446

Oudh Circle.

Description.	On hand at commencement of year.		On hand at close of year.	
	Number.	Value.	Number.	Value.
		Rs.		Rs.
Surveying and other instruments ...	154	1,391	155	1,392
Machinery	27	27,181	27	27,181
Tools	4,182	4,147	4,488	4,231
Office furniture	753	2,499	20,760	2,913
Tents and equipages...	66	2,238	69	2,224
Building materials	258	1,240	375	1,712
Small stores, &c.	623	2,019	1,907	2,492
Miscellaneous	1,087	*64,240	...	...
Boats and canoes	20	460	29	746
Carts	29	52,600	44	83,210
Buildings...	8	21,500	7	13,300
Elephants	16	520	15	495
Bullocks and buffaloes	21	210	19	190
Total ...	7,244	1,80,245	27,895	1,40,080

*Transferred to timber stock.

School Circle.

Description.	On hand at commencement of year.		On hand at close of year.	
	Number.	Value.	Number.	Value.
		Rs.		Rs.
Timber 1,064 (cubic feet and 380 maunds) ...	42,879	23,165	217,431	1,20,964
Surveying and other instruments ...	68	600	88	786
Machinery	9	52	31	221
Tools	3,735	5,513	4,626	6,271
Office furniture	171	1,660	465	4,683
Tents	27	2,074	35	2,612
Buildings and building materials ...	140	50,472	169	55,715
Miscellaneous	452	1,204	589	3,421
Elephants	3	6,800	3	6,800
Total ...	4,605	68,649	5,865	80,539

leaving a balance in favour of the year of Rs. 11,890.

Financial results.—The financial results of the year under receipts and expenditure compare as follows with those for the two preceding years :—

Circle.	Receipts.			Expenditure.			Surplus.		
	1879-80.	1880-81.	1881-82.	1879-80	1880-81	1881-82.	1879-80.	1880-81.	1881-82.
	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	3,67,601	4,57,667	5,04,037	2,32,234	2,62,447	3,04,893	1,35,367	1,95,170	1,99,144
Oudh ...	3,84,923	2,81,980	3,11,145	2,15,547	2,17,036	2,24,506	1,39,376	64,944	86,639
School ...	2,87,442	2,02,642	2,50,911	2,38,813	2,00,101	3,86,813	48,629	2,541	—1,35,902
Total ...	10,39,966	9,42,229	10,66,093	7,16,594	6,79,574	9,16,212	3,23,372	2,62,655	1,49,881

The receipts were derived from the following sources:—

Circle.	Timber and other produce removed from the forest by Government agency.		Timber and other produce removed from the forests by consumers or purchasers.		Confiscated drift and wait wood.		Miscellaneous.		Total.	
	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	1,97,064	1,77,829	2,56,540	3,19,202	2,051	2,145	1,952	4,758	4,57,607	*5,04,037
Oudh ...	1,21,170	1,22,303	1,54,806	1,[illegible]46	3,414	4,314	2,590	2,682	2,81,980	3,11,145
School ...	1,22,124	1,28,951	78,831	1,05,355	1,177	5,125	56	5,959	2,02,642	†2,50,911
Total ..	4,40,358	4,29,083	4,90,177	6,06,401	6,642	11,584	5,052	13,399	9,42,229	10,66,093

*Including Rs. 103 revenue from forests not managed by Government.

†Including Rs. 5,521 ditto ditto ditto.

As compared with the preceding year, the receipts and expenditure of each Division were as follows :—

Circle.	Division.	Receipts. 1880-81.	Receipts. 1881-82.	Increase or decrease.	Expenditure. 1880-81.	Expenditure. 1881-82.	Increase or decrease.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs
Central	Direction ...	...	...	...	28,519	22,233	−6,286
	Naini Tál ...	35,782	33,283	−2,499	43,682	38,164	−5,518
	Kumaun ...	1,85,371	1,94,439	+9,068	72,140	87,294	+15,154
	Ránikhet ...	36,605	45,766	+9,162	31,940	38,340	+6,400
	Garhwál ...	1,26,662	1,19,484	−7,178	49,133	56,468	+7,335
	Ganges ...	61,356	82,668	+21,312	29,951	39,726	+9,775
	Jhánsi ...	3,755	4,860	+1,105	3,095	2,966	−129
	Lalitpur ...	8,076	11,006	+2,930	3,977	4,728	+751
	Bánda ...	...	12,531	+12,531	...	14,974	+14,974
Oudh	Kheri ...	50,441	42,695	−7,746	1,28,424	1,37,024	+8,600
	Bhira Sub-division	7,162	6,408	−754			
	Bahramghát ...	1,11,316	1,11,807	+491			
	Bahraich ...	30,165	60,337	+30,172	31,020	27,947	−3,073
	Gonda ...	30,753	21,117	−9,636	8,542	10,232	+1,690
	Gorakhpur ...	43,118	59,902	+16,784	17,629	18,854	+1,225
	Pilibhit ...	9,025	8,879	−146	14 947	12,586	−2,361
School	Direction ...	...	...	...	16,473	17,863	+1,390
	Direction ...	14	175	+161	35,718	63,611	+27,893
	Dehra Dún ...	54,948	64,068	+9,120	31,248	31,489	+241
	Jaunsár ...	30,570	44,682	+14,112	38,038	51,035	+12,997
	Tons ...	90,030	1,03,750	+13,720	76,992	2,25,490	+1,48,498
	Saháranpur ...	27,080	38,236	+11,156	18,106	15,188	−2,918
	Total ...	9,42,229	10,66,093	+1,23,865	6,79,574	9,16,212	+2,36,638

The following tables show the expenditure under the two main heads—A., Conservancy and Works, and B., Establishments :—

A.

Circle:		Timber and other produce removed from the forests by Government agency.	Timber and other produce removed from the forests by consumers or purchasers.	Confiscated drift and wait wood.	Rent of leased forests.	Live stock, stores, &c	Communications and buildings.	Demarcations, improvements, &c.	Miscellaneous.	Total.
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	1880-81 ...	77,955	17,243	537	4,000	6,329	27,480	25,722	1,078	1,60,344
	1881-82 ...	91,978	17,296	202	4,997	11,566	30,230	37,550	2,993	1,96,812
Oudh ...	1880-81 ..	71,263	6,687	172	...	8,245	33,928	14,648	656	1,35,599
	1881-82 ...	68,869	8,683	438	...	7,047	36,059	18,401	1,250	1,40,747
School ...	1880-81 ..	80,196	4,812	11	8,501	4,425	10 318	8,835	2,376	1,19,474
	1881-82 ...	2,27,587	5,703	220	8,501	9,644	24,626	15,726	10,458	3,02,465
Total ...	1880-81 ..	2,29,114	28,742	720	12,501	18,999	71,726	49,205	4,110	4,15,417
	1881-82 ...	3,88,434	31,682	860	13,498	28,257	90,915	71,677	14,693	6,40,024

B.

Circle.	I. Salaries.		II. Travelling allowances.		III. Contingencies.		Total.	
	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.	1880-81.	1881-82.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	89,483	93,344	8,620	9,716	3,990	5,021	1,02,093	1,08,081
Oudh ...	66,104	66,706	11,234	12,675	4,099	4,378	81,437	83,759
School ...	65,769	69,405	11,580	10,921	3,278	4,022	80,627	84,348
Total ...	2,21,356	2,29,455	31,434	33,312	11,367	13,421	2,64,157	2,76,188

The receipts and expenditure under the three great heads—

I.—Departmental timber operations,

II.—Other revenue,

III.—Formation, protection, and improvement of forests,

were as follows :—

Circle.		Departmental timber operations.			Other revenue.			Formation, protection, and improvement charges.	Net surplus.
		Receipts.	Charges.	Plus or minus.	Receipts.	Charges	Surplus.		
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ..	1880-81	1,97,064	1,30,667	+66,397	2,60,542	63,339	1,97,203	68,431	1,95,169
	1881-82..	1,77,828	1,49,834	+27,994	3,26,209	64,647	2,61,562	90,412	1,99,144
Oudh ..	1880-81..	1,21,170	86,738	+34,432	1,60,810	44,321	1,16,489	85,976	64,945
	1881-82	1,22,951	89,582	+33,369	1 88,194	62,822	1,25,372	72,102	86,639
School ..	1880 81...	1,22,123	1,02,887	+19,236	80,519	26,485	54,034	70,729	2,541
	1881-82...	1,28,951	2,76,559	—1,47,608	1,21,960	33,809	88,151	76,445	—1,35,902
Total ...	1880-81	4,40,357	3,20,292	+1,20,065	5,01,871	1, 4,145	3,67,726	2,25,136	2,62,655
	1881-82..	4,29,730	5,15,975	—86,245	6,36,363	1,61,278	4,75,085	2,58,959	1,49,888

The aggregate receipts for the three Circles in the year under report were thus Rs. 10,66,093, as compared with Rs. 9,42,229 in 1880-81 and Rs. 10,39,966 in 1879-80; the aggregate expenditure was Rs. 9,16,212, as compared with Rs. 6,79,574 in 1880-81 and Rs. 7,16,594 in 1879-80; and the aggregate net surplus was Rs. 1,49,881, as compared with Rs. 2,62,655 in 1880-81 and

Rs. 3,23,372 in 1879-80—the falling off being due to a deficit of Rs. 1,35,902 in the School Circle. There was an increase of Rs. 1,23,864 in receipts over those for the previous year; but this was more than counterbalanced by an increase of Rs. 2,36,638 in expenditure, and the net surplus was thus Rs. 1,12,774 less. In the Central and Oudh Circles the surplus increased by Rs. 25,669, *i.e.*, Rs. 3,974 in the former and Rs. 21,695 in the latter.

The outstandings and liabilities on account of contractors and disbursers are shown in the following table:—

Circle.	*Department debtor.*			*Department creditor.*			*Balance due.*	
	At commencement of year.	Recoveries in cash, &c.	At close of year.	At commencement of year.	Payments made during the year.	At close of year.	To Department, outstandings.	By Department, liabilities.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Central ...	1,294	63,067	64,361	7,506	63,944	71,450	10,811	3,722
Oudh ...	105	2,40,133	2,10,238	25,036	2,51,144	2,76 180	36,047	105
School ...	...	2,00,233	2,00,233	1,01,697	1,10,455	2,12,152	11,919	...

The revenue received and outstandings on account of revenue were as follows:—

Description.		Outstanding at commencement of the year	Value of sales and other revenue during year.	Total.	Amount realised during year.	Balance due to Department at close of year.
		Rs.	Rs.	Rs.	Rs.	Rs.
Central Circle	Timber sales, grazing dues, minor produce, &c.	656	5,05,852	5,06,508	5,04,037	2,471
Oudh Circle ...	Ditto ditto...	34,996	3,11,099	3,46,095	3,14,378	31,717
School Circle...	Ditto ditto...	12,444	2,48,216	2,60,660	2,50,911	9,749

The work done by the Bahramghát saw-mills is shown in the comparative table below:—

Year.	Value of work done at old rates.	Expenditure.	Surplus.
	Rs.	Rs.	Rs.
1880-81	9,296	8,532	764
1881-82	11,977	8,700	3,277

The cost fell from Rs. 18-15-11 last year to Rs. 15-8-6 in the year under report.

General remarks.—Rules were framed and issued in accordance with the provisions of section 2, Act XII., 1850, for the taking of security from forest subordinates for public moneys passing through their hands. The rules for defining the relations between Revenue and Forest Officers in force in the Oudh Circle were extended to the whole of the Central Circle and to the Saháranpur Division of the School Circle. Sanction was received from the Secretary of State to the appointment of two European officers annually for the next three years from the Survey of India or from the passed students of the Thomason College at Roorkee, as probationers who will be eligible for promotion to the class of Sub-Assistant Conservators of Forests. In the Central Circle the chief event of the year was the acquisition of the Bánda forests, comprising 54,251·73 acres, at an aggregate cost of Rs. 87,413-8-0, or Re. 1-9-10 per acre. As negotiations are still pending for the remaining area, these forests have not yet been gazetted or brought under the Forest Act. The year was a favourable one for forest revenue, the crops in the hills and plains being good and the demand for forest produce brisk. Timber fetched good prices, the chief buyers being the Meerut merchants. The class and amount of timber produced and the system of disposal adopted by the Department is said to meet the demand and suit the style of trade admirably. It is satisfactory to learn that cordial relations now exist between Forest Officials and villagers, the latter having found that they derive considerable benefit from the departmental operations. As regards wild animals it would appear that there is no cause for complaint

in the case of deer and tigers, as the former find abundant food in the forests, and the latter seldom prey upon cattle and are easily killed if they do. Wild elephants, however, are said to have increased very much of late and to do an enormous amount of damage to the forests, and it is under consideration whether any or what action should be taken against them. The plan of making Forest Officers subordinate to the district Revenue Officers, having been found to work successfully in Oudh, was introduced into the Central Circle also, and is reported to be working smoothly. The Forest School at Dehra may now be held to have been fairly started, and the first regular course of theoretical instruction was held from the 10th July to the 15th October. The classes were attended by five probationers and seven apprentices, five of whom remained as students at the end of the year, and also by six officers of the superior staff from other provinces. The School buildings have been completed and are said to be in good order; the necessary apparatus has been provided; a library is being formed, and some valuable collections of woods, minerals, geological specimens, &c., have been added. Rules for the admission and training of condidates for the appointment of Forest Rangers have been laid down by the Government of India.

6.—Mines.

For this see Annual Administration Report for 1877-78.

7.—Trade.

(a)—*Trade with Tibet and Nepal.*

The external trade of these provinces consists of (A) Trade with the foreign countries of Tibet and Nepal, (B) Trade with other provinces of British India, and (C) Trade with the ports of Calcutta and Bombay.

The traffic with Tibet and Nepal is registered, under the orders of the Government of India, by a cordon of registration posts maintained along the frontier. In the case of neither country is the traffic of great actual importance, and its registration is merely effected in order to complete the statistics of the external land trade of British India, which are compiled and issued by the Imperial Government. Of the inter-provincial traffic and traffic with the

ports only the portion which passed over the railways was registered, and includes therefore about 60 per cent. of the former and practically the whole of the latter.

(*A.*)—*Trade with the countries of Tibet and Nepal.*—The amount and value of the trade during the year under report and the two preceding years is indicated by the following figures :—

* *Amount.*

	Tibet.			Nepal.			Total.		
	1879-80.	1880-81.	1881-82.	1879-80.	1880-81.	1881-82.	1879-80	1880-81	1881-82
	Mds.	Mds.	Mds.	Mds.	Mds	Mds	Mds.	Mds.	Mds.
Imports from ...	61,516	69,154	64,499	1,846,802	2,518,875	2,995,905	1,908,318	2,588,029	3,060,404
Exports to ...	45,541	48,343	53,595	118,170	176,109	167,194	163,711	224,452	220,789

* *Value.*

	Tibet.			Nepal			Total.		
	1879-80.	1880-81	1881-82.	1879-80.	1880-81.	1881-82	1879-80	1880-81.	1881-82.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imports from ...	3,73,754	4,32,425	4,21,944	49,42,204	57,22,645	59,14,693	53,15,958	61,55,070	63,36,637
Exports to ...	1,88,372	1,68,828	2,08,460	27,79,304	32,22,626	25,96,800	29,67,676	33,91,454	28,05,206

* Weights are as returned by the native clerks in charge of the registration posts. Value are calculated from price lists furnished each month from the frontier districts, except in the case of miscellaneous articles, the values of which are returned by the registration clerks.

The value of the whole traffic, import and export, did not therefore amount to a crore of rupees, representing a trade of about one-tenth the importance of that annually transacted by the city of Cawnpore.

Measured by its value, the trade shows an increase of over two lakhs of rupees (or 3 per cent.) in the imports, and decrease of nearly six lakhs of rupees (or 17 per cent.) in the exports, when compared with that of the year preceding. It has been pointed out in previous reports that the most noticeable fact in connection with this traffic is the large excess in value of imports over that of exports, which indicates a steady drain of silver from these provinces. In 1880-81 this excess amounted to Rs. 27½ lakhs, and the

decrease in value of exports concurrently with an increase in value of imports raised its amount during the year under report to over Rs. 35 lakhs. The subjoined figures contrast the excess value of imports in both Tibet and Nepal trade during the last three years :—

Excess value of imports.	1879-80.	1880-81.	1881-82.
	Rs.	Rs.	Rs.
Excess in Tibet trade	1,85,382	2,63,597	2,13.484
Ditto Nepal	21,62,900	25,00,019	33,17,893
Total ...	23,48,282	27,63,616	35,31,377

While our exports during these three years have stood in the ratio of 100, 114, and 94, the imports have maintained that of 100, 115, and 119, and the difference between their value has increased in the ratio of 100, 118, and 150. During the year under report our exports balanced only 45 per cent. of our imports, the reason for this lying partly in the fact that a large portion of the imports are sold virtually by the Darbár for cash, and partly in the fact that the valuation is unequal. Exports are valued before taxation and before reaching their destination, whilst imports are valued after having been heavily taxed by the Darbar and after having arrived in our territory.

Separate notice is given in the following paras. to the more important features in the trade with both countries.

(1).—*Trade with Tibet.* The total trade exhibits a small increase (5 per cent.) when compared with that of the year preceding, due entirely to an increase in export, imports showing a small decrease. So far as British territory is concerned, the trade is absolutely insignificant and derives what interest it possesses from its furnishing a livelihood to an itinerant tribe in Kumaun (the Bhotias) through whose hands most of the goods pass. The imports are almost wholly composed of salt (constituting 26 per cent.), borax (48 per cent.), and wool (18 per cent. , in return for which cotton goods, grain, and sugar are exported. The fluctuations of traffic in each of these goods during the last three years are compared below :—

			1879-80.	1880 81.	1881 82.
Imports ...	Borax ...	Mds.	18,948	28,536	33,821
		Rs.	94,616	1,70,730	2,02,926
	Salt ...	Mds.	29,785	37,531	27,717
		Rs.	1,81,681	1,55 790	1,10,868
	Wools, woollen goods ...	Mds.	2,685	2,985	2,912
		Rs.	51,275	59,936	77,081
Exports ...	Cotton goods ...	Mds.	417	438	462
		Rs.	19,409	23,889	24 823
	Grain ...	Mds	39,989	43 330	46,796
		Rs.	1,16,919	97,334	1,18,584
	Sugar ...	Mds	5,177	3,437	5,559
		Rs.	23,437	19,818	42,410

The import of borax shows a steady increase, and that of salt a corresponding decrease. It is probable that Tibet salt, although the only untaxed salt in India, will not much longer hold its own before the taxed article from the plains as cheapness of carriage increases. The construction of a railway to the foot of the hills may be expected to give the final stroke to its import, although the line may very probably afford a more than corresponding stimulus to the import of borax and the excellent wool for which the Tibet sheep are famed.

(2) *Trade with Nepal.*—There is a decrease of Rs. 4,33,778 (nearly 5 per cent.) in the value of the total trade, import and export, when compared with that of the preceding year, and this too although there was an increase of Rs. 1,92,048 in the value of the imports. The exports therefore suffered a diminution of Rs. 6,25,826 (or nearly 20 per cent.), more than half of which was due to a falling off in the export of cotton goods.

The excess in value of imports over that of exports, which amounted in the two years preceding to Rs. 21,62,900 and Rs. 25,00,019 respectively, increased to Rs. 33,17,893 in the year under report. Under any circumstances the value of imports would considerably exceed that of exports, since, *firstly*, both classes of goods being valued at rates obtaining in our territory, the value of the exports includes a smaller allowance for traders' profits than is included in the value of the imports; and, *secondly*, because exports are valued when untaxed, but imports after having been taxed by the Nepalese officials. These two causes would account for an excess of at least 20 per cent. in the value of the imports, but in the year under report the excess amounts to as much as 56

per cent. on the value, and this must represent the drain of a large amount of coin from British territory. There seems no reason for suspecting that the cultivators of the Nepalese tarái absorb so large an amount of silver annually, and grounds have been given in previous reports for suspecting that this excess in great measure represents the profits of the Darbar, which are raised not only by taxation, but also by the sale of timber and rice through contractors.

The fluctuations of traffic in the principal articles of commerce during the last three years is compared below :—

			1879-80.	1880-81.	1881-82.
Imports...	Rice, husked and unhusked	Mds. ...	10,11,871	7,62,559	12,00,997
		Rs. ...	24,50,825	15,55,124	22,68,088
	Oilseeds	Mds. ...	1,17,042	2,06,590	2,44,036
		Rs. ...	3,46,647	5,67,611	5,81,674
	Timber	Mds. ...	4,46,162	10,28 904	10,09,641
		Rs. ...	5,57,702	12 54,774	11,21,907
	Drugs (not intoxicating)	Mds. ...	23,334	34,202	33,627
		Rs. ...	1,87,314	3,02,067	2,36,999
	Spices	Mds. ...	18,533	27,782	27,224
		Rs. ...	2,51,377	7,44,891	5,07,174
Exports...	Cotton goods ...	Mds. ...	34,408	35,603	29,365
		Rs. ...	21,27,379	21,58,291	18,08,697
	Metals	Mds. ...	3,321	4,632	3,619
		Rs. ...	1,11,400	1,36,573	1,05,130
	Salt	Mds. ...	25,577	44,755	46,595
		Rs. ...	1,29,351	2,18,256	1,94,679
	Sugar	Mds. ...	18,786	22,251	18,802
		Rs. ...	1,17,666	1,40,628	1,07,025

The increase in the import of rice and oilseeds is likely to continue since cultivation in the Nepalese tarái appears to be increasing, and in some portions of it to be extending very rapidly. The Collector of Pilibhit writes: "Rice cultivation is advancing by leaps and bounds in parts of the country which but a few years ago appeared hopeless jungle. I saw myself this year a huge rice plain where but three years ago there was a dense jungle hardly to be beaten by elephants." But as yet the quota contributed by Nepal to the rice trade of the Sub-Himalayan districts is wholly insignificant. Of the six lakhs of maunds annually despatched from the Pilibhít district towards Bareilly, only 80,000 maunds are Nepal produce; and the town of Uska, in the Basti district, which annually receives some two lakhs of maunds of rice from across the frontier, does a business of five times this amount in rice produced in British territory. The fluctuations in the import of drugs and spices are not more than must be expected to occur in a trade

which deals with the uncultivated products of the jungle. The large decrease under the export of cotton goods is principally due to the returns of the Kakrahighat post, which registered Rs. 3,08,674 worth less than the year preceding. The export of salt does not show the increase which might have been expected to follow on the cheapening of price from improvement in communication.

To the foreign trade report for 1880-81 were appended schedules professing to show the rates according to which trade crossing the frontier of the Pilibhít, Kheri, and Bahraich districts was taxed by the Nepal Darbar. Having been compiled from lists which were received through the Resident, the rates bore the appearance of being authoritative, and translations were made of the schedules and circulated, through the District Officers, amongst the classes engaged in the frontier traffic. Lists of the rates levied on trade crossing the remaining portion of our frontier, *i.e.*, that of the Gonda, Basti, and Gorakhpur districts, have since been received. In their original form they were almost unintelligible, and it is not without much labour that they have been recast into a form which gives them at all events the resemblance of coherence.

It may be added that the frontier bazars through which the Darbar realizes most of its revenue are in fact principally peopled by British traders. The tract in which they are situated is too unhealthy to admit of residence in the rains, and the towns are deserted in May of each year, to be repeopled at the commencement of the cold weather. That the trade centres in so unsuitable a locality instead of in permanent marts in British territory is entirely the result of Nepalese restrictions.

(*B.*)—*Railway-borne trade with other Provinces of British India and with the ports of Calcutta and Bombay.*—The only change which has been made in the compilation of the Railway-borne trade during the year was the modification of the system in which the provinces were sub-divided for the purpose of registration. The lengths or "blocks" into which the lines of rail within the province were formerly sub-divided coincided with well-marked railway sections and bore no reference to any geographical or administrative divisions. This system was found unsatisfactory, as the extent of each block could only be borne in mind by constant references

to lists of stations, and from the commencement of the year under report the "blocks" were made coterminous with the revenue divisions in the North-Western Provinces, while Oudh forms a block by itself. The limits of external blocks remained unaltered.

The external Railway trade of the provinces compares with that of the previous year as follows:—

		Imports from		Exports to	
		1880-81.	1881-82.	1880-81.	1881-82.
Calcutta ...	Maunds,	21,48,815	26,71,796	53,16,425	82,72,912
	Rupees,	5,95 54,330	5,47,92,495	5,47,23,140	6,18,25,212
Bombay ...	Maunds,	2,39,267	2,11,627	7,23,185	7,48,395
	Rupees,	1,30,04,104	1,08,17,731	29,89,682	68,18 529
Bengal (excluding Calcutta).	Maunds,	58,21 692	84,05,259	9,95,240	12,05,334
	Rupees,	1,86,89,146	2,04,61,389	93,28,605	80,13,472
Panjab (including Dehli).	Maunds,	12,09,494	18,78,986	42,29,505	41,21,520
	Rupees,	1,23,90,836	1,20,27,556	2,36,54,451	1,79,03,563
Rajputana and Gwalior.	Maunds,	26,0 ',653	38,29,917	20,16,907	33,84,624
	Rupees,	1,10,18,286	2,28,50,523	1,20,79,484	1,74,90,162
Central Provinces.	Maunds,	4,30,317	11,06,372	5,29,690	7,19,734
	Rupees,	21,77,106	34,42,814	46,83,031	52,32,149
Southern India (excluding Bombay port).	Maunds,	1,03,887	59,395	4,72,291	4,11,320
	Rupees,	16,41,449	9,07,837	59 80,109	65,33,012
Total ...	Maunds,	1,25,54,125	1,81,63,352	1,42,83,243	1 88,63,839
	Rupees,	11,84,75,251	12,53,00,345	11,34,38,502	12,38,16,099

The value of the total traffic was nearly 25 crores of rupees, towards which imports and exports contributed in almost equal proportions.

The *trade with Calcutta* shows for imports an increase of 24 per cent. in weight and a decrease of 8 per cent. in value. The increase is principally accounted for by Railway material; the decrease is partly due to a falling off in the import of cotton goods and partly to a lowering of the rate on which their value has been calculated. Exports have increased 55 per cent. in weight and 13 per cent. in value, the whole of which is due to a considerable expansion of traffic under grain and oilseeds.

The *traffic with Bombay* is insignificant when compared with that of Calcutta. The total value of the Bombay trade during the year 1880-81 only amounted to 15 per cent. of that with Calcutta. The result of the new line of communication with Bombay *viâ* the Rajputana State Railway has fallen far short of expectation. Cotton was the only commodity which was exported to Bombay in any considerable quantity *viâ* the Rajputana State Railway and the whole of this was consigned from Agra city. The Rajputana State Railway route to the sea-board offers the same advantage to the Meerut division as to Agra city in respect to quickness of delivery and freights, yet it attracted no portion of the 10 lakhs maunds wheat which were exported from the Meerut division for shipment at Calcutta. Bombay received by this route 40 per cent. of the Agra cotton and practically nothing at all of the Meerut wheat. This may probably be ascribed to the effect of the break of gauge at Agra in deterring through consignments.

The total *trade with Bengal* shows very little change as regards value, but there is an increase amounting to 44 per cent. in the weight of the imports, due in the main to an increase in the import of coal.

The *trade with the Panjáb* shows an increase in the weight of imports of 55 per cent., due to an expansion of grain import, concurrently with a decrease of nearly 3 per cent. in value, due to a falling off in the import of woollen and silken goods. Exports have slightly decreased in both weight and value.

The large expansion of the *trade with Rajputana* is one of the most notable facts in the trade of the year and indicates a considerable increase in the activity of the Rajputana State Railway. Measured by its *weight* the trade has increased by 56 per cent., and its recorded *value* shows an increase of no less than 74 per cent. A portion of the increase of value is however merely nominal, since it represents the value of treasure which was registered separately for the first time during the latter portion of the year under report. There is, however, a real increase of 36 per cent. in the value of the import and export trade. The increase in import is principally under salt, while that in export affects nearly every important article of commerce.

The most prominent features in the traffic with the *Central Provinces* are an increase in the import of grain and in the export of salt; Sambhar salt having apparently commenced to compete with Bombay sea salt in a tract to which it had previously but little penetrated.

In the *trade with Southern India*, under which heading are included all railway stations in the Bombay and Madras Presidencies except Bombay port, imports showed a decrease of 42 per cent. The export trade is of considerably greater importance. It shows large fluctuations under several important heads, but the net result is an increase in value of 5½ lakhs of rupees, or of 9 per cent. on the trade of the year preceding.

The following is a summary of the traffic in the principal articles :—

Imports.			*Exports.*		
Name.	Value in lakhs, Rs.		Name.	Value in lakhs, Rs.	
	1880-81.	1881-82.		1880-81.	1881-82.
A.—European goods from Calcutta.			*A.—Exported to Europe or China.*	Rs.	Rs.
			Cotton	183	201
Cotton goods ...	589	495	Oilseeds ...	83	103
Metals	96	97	Lac (manufactured),	16	26
			Indigo	78	121
B.—Indian goods.			Hides	20	21
			Borax	7	7
Food grain other than wheat.	57	80	Saltpetre ..	7	6
			B.—Exported to places in India.		
Stick lac ...	14	15			
Salt	92	138	Food grains other than wheat.	40	21
C.—Partly European, and partly Indian.			Ghi	27	34
			Sugar	166	35
			Liquors	22	20
Liquors ...	29	40	*C.—Exported partly to Europe and partly to places in India.*		
			Wheat	58	116
			Opium	157	120
			Tea	14	6
Total ...	877	865	Total ...	878	837
Total under all heads,	1,185	1,253	Total under all heads,	1,134	1,238

(c.) *Internal road traffic registration.*—Registration is conducted with the definite object of obtaining data concerning the commercial utility of metalled roads of the provinces, and, in addition, of ascertaining the lines along which traffic is most extensive, and which therefore offer the best prospects for Railway extension. During the preceding year registration had been effected of all traffic along metalled roads in the Benares, Allahabad, and Jhánsi Divisions, as well as on some unmetalled roads in Bundelkhand and the trans-Ghagra trade. During the year under report traffic was registered of the whole of the Rohilkhand division, and of all the districts comprised in the Meerut division, except Aligarh. At present registration is in progress on the metalled roads of the Agra division and of the Province of Oudh. This leaves only the district of Aligarh to be taken up in 1883-84 in order to provide a complete series of road traffic returns for the whole of the provinces. Every effort has been made to eliminate all preventible causes of error, and there is no reason for doubting an approximate accuracy of these returns, which is sufficient for all practical purposes.

8.—Public Works.

(a)—*Buildings and Roads Branch.*

I.—Accounts.—The following statement shows the revenue actually realized, as compared with the estimate for 1881-82 and actuals of the previous year:—

Service.	1881-82.			1880-81.	
	Estimate.	Actuals.	Total.	Actuals.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial—					
Military...	17,500	956	...	1,498	
Civil (other services) ...		14,074	...	15,343	
Thomason Civil Engineering College Press	32,500	25,372	...	29,670	
	50,000	...	40,402	...	46,511

Service.	1881-821.			1880-81.	
	Estimate.	Actuals.	Total.	Actuals.	Total.
Provincial—	Rs.	Rs.	Rs.	Rs.	Rs.
Rents of public buildings ...	12,500	9,748	...	9,708	
Sales of produce	...	12,041	...	11,383	
Ditto houses, land, &c. ...	22,500	1 767	...	17,888	
Ditto old materials ...	...	3,470	...	3,459	
Ditto tools and plant ...	...	3,706	...	3,159	
Fines, refunds, &c. ...	7,500	7,939	...	13,145	
Roorkee Workshops ...	57,500	1,70,274	...	3,87,003	
	1,00,000	...	2,08,945	...	4,45,745
Local incorporated	...	*Nil.*	...	...	...
Grand Total ...	1,50,000	...	2,49,347	...	4,92,256

The differences between the estimate for 1881-82 and actuals of 1880-81 are mainly due to the Roorkee Workshops receipts.

The total budget grants available for expenditure by the Public Works Department as finally modified were as follows :—

	Rs.
Imperial funds	3,86,916
Provincial funds	25,68,000
Local Incorporated funds	17,56,000
Total ...	47,10,916

The actual expenditure for the year in the Buildings and Roads Branch distributed by funds was—

	Rs.
Imperial	3,35,979
Provincial	26,10,002
Local incorporated	18,31,912
Total ...	47,77,893
Contributions	18,094
Other Departments	18,998
GRAND TOTAL ...	48,14,985

Distributed by services and main heads of account as follows :—

Service and head of account.	Original works.	Repairs.	Public Works Department establishment.	Thomason Civil Engineering College, Roorkee, establishment.	Tools and plant.	Increase or decrease of suspense balances.	Toll collection establishment.	Total.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial.								
Military ...	15,245	10,124	...	...	...	...	...	...
Civil (other services) ...	62,382	58,942	...	...	...	...	...	...
Total ...	77,627	69,066	*26,492	1 58,904	1,986	+1,904	...	3,35 979
Provincial.								
Civil buildings	6,23,025	2,64,340	...	...	...	...	...	...
Communications.	1,59,723	9,78,735	...	...	...	...	...	...
Miscellaneous public improvements,	1,58,540	...	...	...	...	...	...	...
Ferry collection establishment ...	...	...	...	...	...	...	11,167	...
Total ...	9,41,288	12,43,075	5,54,978	..	8 892	-1,49,398	11,167	26,10,002
Local incorporated.								
Civil buildings	29,586	31,614	...	...	...	...	...	...
Communications ...	4,06,462	9,58,220	...	...	...	...	...	...
Miscellaneous public improvements,	11,883	20,784	...	...	...	...	...	...
Ganges river toll collection establishment ...	...	...	...	...	...	...	3,774	...
Total ...	4,47,931	10,10,618	3,64,041	...	5,548	...	3,774	18,31,912
Contributions	...	...	...	...	...	...	...	†18,094
Other Departments	...	...	...	...	...	...	...	†18,998
GRAND TOTAL,	...	...	...	...	...	...	...	48,14,985

* This excludes Rs. 7,566 on account of direction and account, Thomason College.

† These figures include Rs. 3,481 on account of Public Works Department establishment.

The following statement compares final grants and actual expenditure :—

Service.	Grant.	Actual outlay.	*Outlay compared with grant.*		Percentage of excess or short outlay to grant.
			More.	Less.	
	Rs.	Rs.	Rs.	Rs.	Rs.
Imperial ...	3,86,916	3,35,979	...	50,937	—13·2
Provincial ...	25,68,000	26,10,002	42,002	...	+ 1·6
Local incorporated ...	17,56,000	18,31,912	75,912	...	+ 4·3
Total ...	47,10,916	47.77,893	1,17.914	50,937	+ 1·4

The short outlay under Imperial is subdivided as follows :—

	Rs.
Military	5,666
Other services	45,271
Total ...	50,937

and is due chiefly to short expenditure on opium works and on educational establishment for the Roorkee College. Under Provincial and Local incorporated the excess outlay over the grant, amounting to 1·6 an d4·3 per cent. respectively, was caused by an effort made during the last three months to avoid a repetition of the heavy lapses which had occurred in previous years.

Unfortuately the system of appropriating funds then in force did not admit of a close estimate being obtained of savings on the items of the budget-estimate, and too much reliance was placed on the expenditure of previous years, which led to the anticipation that these savings would be large.

The system of making appropriations subsequently introduced will, it is believed, entirely obviate any such error in the future, while permitting of the Chief Engineer exercising such a control over the current expenditure as will enable him to bring it within a very small margin of the grant.

II.—Works.—Imperial.—The expenditure (Rs. 3,35,979) during the year from Imperial funds was distributed as follows :—

		Rs.
Military works		25,369
Civil (Other services)—	Rs.	
Customs	897	
Opium	48,455	
Postal	35,082	
Telegraph	8,417	
Administration	12,264	
Educational	16,027	
Ecclesiastical	182	
		1,21,324
Thomason Civil Engineering College, Roorkee—		
Educational establishment and Press		1,60,808
Tools and plant		1,986
Public Works Department establishment proper ...		26,492
Total ...		3,35,979

distributed by works and repairs.

The appended schedule details the works on which expenditure has been incurred during the year. The following more important items deserve special notice :—

Military.—No military works of importance were executed during the year.

Opium.—Opium Factory at Ghâzipur.—There has been a good deal of expenditure on various works at the Opium Factory at Ghâzipur, of which the following are the most important :—

Carrying out certain *extensions to the wash-shed, No. 7 caking room and lewa-khana.* This work was commenced during the current year, and about a third of it has been done.

A new pump has been put up over the large factory well in connection with the fire preventive arrangements.

An iron roofed verandah for Nos. 1 and 9 cake godowns has been completed during the year.

A room is being added to the weighment-shed and is more than half finished.

The design for *the Principal Assistant's house* having been approved, work has been commenced and built up to plinth level.

Postal.—The old temporary *workshops at Aligarh* proving to be in a dangerous condition, the Government decided to rebuild them gradually on a more permanent plan. The total cost of the construction will amount to about Rs. 60,000, of which Rs. 8,000 were spent during this year, principally in collection of material.

A new printing press building for the Postal Department at Aligarh was also completed during the year at a cost of Rs. 16,400.

Telegraph.—*Two blocks of out-houses* have been added to *the Allahabad Telegraph-office and a new well* at a total cost of Rs. 3,600.

Educational.—The roofs of the *Thomason College buildings* are in an unsatisfactory condition. They were under-timbered at the first, and the roofs of several rooms have from time to time been renewed, owing to their having become dangerous. Rs. 5,380 were expended on such reconstruction during the year, but much remains to be done, and a heavy outlay must be incurred before the whole can be pronounced safe. A comprehensive estimate has been called for with a view to arranging for the execution of the work progressively.

The net expenditure during the year on account of the *Thomason Civil Engineering College at* Roorkee is detailed as follows :—

Works and repairs to College.

	Rs.
Buildings	16,027
Educational establisment	1,37,616
Press	23,192
Add increases in suspense balance	1,904
Share of P. W. D. establishment, direction and accounts,	7,566
Total ...	1,86,305

The charges under the head Provincial have been as follows during the year :—

Provincial.

	Rs.
Civil buildings	8,87,365
Communications	11,38,458
Miscellaneous public improvements	1,58,540
Total ...	21,84,363

	Rs.
Tools and plant	8,892
Department Public Works establishment	5,54,978
Ferry collection establishment	11,167
Total ...	27,59,400
Deduct decrease in suspense balance	1,49,398
GRAND TOTAL ...	26,10,002

This expenditure was distributed for works and repairs by heads of service as follows :—

	Rs.	Rs.
Administration	2,62,458	
Minor Departments	92,788	
Law and Justice	53,037	
Ecclesiastical	16,389	
Jails	2,57,474	
Police	1,28,341	
Educational	64,984	
Medical	5,770	
Miscellaneous	6,124	
		8,87,365
Roads and bridges	9,90,442	
Boat bridges and ferries	1,12,846	
Accommodation for travellers	35,170	
		11,38,458
Miscellaneous public improvements	1,58,540	
		1,58,540
Total ...		21,84,363

The separate expenditure on original works and repairs is exhibited in the table at page 119.

The following are the most important or interesting :—

CIVIL BUILDINGS.—*Land revenue.*—The *reroofing of the Ráth tahsíli* in Hamírpur district was completed at a cost of Rs. 9,147.

At Etah, *a house for joint residence of Assistant Magistrate and District Superintendent of Police* was completed at a total cost of Rs. 17,051. Some *additions and alterations* were undertaken at *the Mainpuri Collector's kutcherry*, estimated at Rs. 9,500, one-third being executed during the year. Some *additions to the tahsíli at*

Muttra were completed, and *a new tahsíli at Bah*, in the Agra district, was commenced; the estimate for the latter amounted to Rs. 10,400, of which Rs. 2,400 were spent.

At Lalitpur the *additions to the Deputy Commissioner's Court were* completed; the total outlay amounted to Rs. 14,440.

Combined tahsíli and thana at Kashipur, in the Tarái.—The main building and east block of the establishment quarters were nearly complete and the west block well advanced.

The tahsíli at Puranpur has been completed.

The *subsidiary buildings to tahsíli at Mirganj* have been completed.

The tahsíli and thana at Mohanlalganj have been reroofed, and the work is complete, with the exception of a few details. *The tahsíli and thana at Hardoi* has been reroofed and remodelled, and the work is finished, with exception of roofing of verandahs in main block and a little plastering.

Reroofing and remodelling as a tahsíli only the combined tahsíli, and thana at Sandila.—This work was held in abeyance pending the completion of the new thana which is under construction at Sandila.

The combined tahsíli and thana at Nighasan was completed.

The combined tahsíli and thana at Muhamdi was completed, with the exception of tiling over the police lines.

The combined tahsílis and thanas at Amethi, Kadipur, and Gonda, and a tahsíli at Tanda were also completed.

Converting the road chauki at Partabgarh into a combined tahsíli and thana.—The work was commenced this year and is about a a quarter finished.

The tahsíli and thana at Bahraich is in progress. The tahsíli and treasury blocks are practically completed and a large quantity of materials collected for finishing the remaining blocks.

Additions and alterations to the Magistrate's Court at Ballia are well advanced and the building will be soon ready for occupation.

Excise.—The new distillery at Sidhauli has been completed.

Residences for Local Government.—The small remainder of work at *Government House, Naini Tál,* was completed early in the year.

Secretariat Offices.—*A tent godown* was completed *at Allahabad* at a cost of Rs. 14,266, the style of design being in comformity with that of the public offices.

Antiquities, Archæological.—The following repairs and restorations have been effected during the year to buildings of historical interest :—

(*i.*) *Agra Fort, Machi Bhawan.*—The work done here during the year has been the completion of the lower story of the arcade, which was begun in the previous year and was incomplete at its close. The Engineer has brought to a successful termination a work in the execution of which no small difficulty and risk were involved. The total expenditure amounted to Rs. 16,020, of which Rs. 1,916 were spent during the year.

(*ii*) *Taj.*—The works done in connection with this building are as follows:—

(*a*) *Restoration of east and west enclosure walls with two kiosks and pavilions.*—This work is now complete. The expenditure to the close of the year amounted to Rs. 28,603, of which Rs. 16,832 were spent during the year.

(*b*) *Repairs of tomb No.* 2 *in sarai.*—The work provided for in the estimate has been completed for Rs. 2,887.

(*c*) *Repairs of tomb No.* 3 *in sarai,* completed at an expense of Rs. 6,398.

(*d*) *Cleaning and repairs of the interior of the gateway,* completed, much to the advantage of the general appearance of the building. Expenditure Rs. 1,970.

(*iii.*) *Etmad-ud-Daula's tomb, Agra.*—The works done on this tomb during the year were the completion of the repairs to the river-face wall and the partial completion of the repairs to the east and west enclosure walls and the mock gateways.

(*iv.*) *Tomb of Firoz Khan at Agra.*—This handsome tomb has been saved from injury and put into thorough repair during the year at a cost of Rs. 3,620.

(*v.*) *Sikandra.*—The works done here during the year are :—

(*a*) *Repairing west mock gateway of Akbar's tomb.*—Estimate Rs. 22,995. Expenditure during year Rs. 9,950. Expenditure to close of year Rs. 9,950. The work is in progress. The whole of the inlaying work has been completed, as well as the repairs of the north and south-west faces. Work is in progress on the east face.

(*b*) *Repairing east mock gateway.*—The whole structure was in a very dilapidated condition. The expenditure incurred during the year has been principally in the prevention of further decay and injury to the building. Expenditure Rs. 991.

(*c*) *Repairing platform round Akbar's tomb,* completed. Expenditure Rs. 4,532.

(*d*) *Repairs to Khwaja Aitbar Khan's tomb,* completed. This ancient monument had been occupied by villagers, who had erected some unsightly mat huts round it. Expenditure Rs. 2,561.

vi. Tomb of Sadiq Khan and Salabat Khan near Sikandra.—Another handsome monument which has been put into a fair state of repair and preserved from further decay at a cost of Rs. 2,975.

vii. Fatehpur Sikri—(*a*) *Hathipul and elephant gate,* repairs to which were in progress last year are now complete, and the gateway with its towers has been throughly repaired. Estimate Rs. 5,012. Expenditure during the year Rs. 1,351 and to the close of the year Rs. 5,135.

(*b*) *Repairs to mosque and dargah.*—The work is nearly complete, the principal operations having been the restoration of the white marble inlaid work and the completion of the roofing and red sandstone work. Estimate Rs. 31,260. Expenditure during the year Rs. 9,897, and to the close of the year Rs. 23,328.

(*c*) *Am-Khas and Dewan-i-Am.*—The work provided for in the estimate of these buildings has all been completed. Estimate Rs. 8,109. Expenditure during and to the close of the year Rs. 8,064.

(*d*) *Agra gate of the fort.*—The repairs to the gate were completed and further decay prevented by roofing in the whole entrance. Estimate Rs. 1,767. Expenditure during the year and to its close Rs. 1,797.

Among the miscellanous works in other districts the following are the principal which have been undertaken this year :—

viii. Jaunpur district. Atala Masjid at Jaunpur.—Some minor repairs consisting of roofing in fallen portions and clearing and painting have been executed during the year at a cost of Rs. 6,714.

ix. Hamirpur district. Jain and other temples.—The restoration in part, of the Kakra marh temples at Mahoba and of the Rohilla Sijari and Sikora (or Barsi) temples was undertaken during the year, but the work is incomplete; it is not possible to restore the temples properly in consequence of a great number of the stones having been removed for bridge building and district works. Expenditure during the year Rs. 1,175.

Law Courts.—A new Munsif's court-house was erected *at Akbarpur, Cawnpore district*, and one was commenced *at Kasganj, Etah district.* Material was collected for a *new Sessions house at Etáwah.* Several minor additons were made to court-houses and their appurtenances.

The Judicial Commissioner's Court at Lucknow was reroofed last year, but the accounts were finally adjusted during 1881-82.

Ecclesiastical.—An expenditure of Rs. 3,300 was incurred in putting up *tablets in the Cawnpore Memorial Church.*

The Church at Ghaziabad was nearly completed. An expenditure of Rs. 6,105 had been incurred against an estimate of Rs. 7,416.

Jails.—Further progress has been made in the following *new Central Prisons* :—

Bareilly.—Somewhat more than half done.

Fatehgarh.—Nearly finished.

Allahabad.—About 7 per cent. still incomplete.

Benares.—About 77 per cent of the work done.

Some additions and alterations have also been made at *Meerut Central Jail and at the District Jails of Bareilly, Moradabad, and Muttra.* The works required in this branch of the administration are very extensive and the expenditure has of necessity been spread over a number of years, only so much work being under-

taken at each locality as can conveniently be completed during the year.

The amount of work still outstanding at the close of the year 1881-82 is estimated at Rs. 10,00,000, and arrangements have been made to carry them out during the next five years by an annual grant of Rs. 2,00,000, which is the utmost that can be spared for the purpose without doing injury to other departments.

Police.—The following new police stations were constructed :—

1st class at	Phúlpur,	Allahabad	district.
Ditto	Marehra,	Etah	ditto.
Ditto	Kádirganj,	ditto	ditto.
Ditto	Shadra,	Meerut	ditto.

Police lines at Pilibhít were commenced this year and all buildings constructed up to roof level.

A new first class police station was commenced *at Sandila* and built up to plinth, and the balance of the allotment expended in collecting materials. The following were also undertaken :—

2nd class station at	Bindki,	Fatehpur	district.
Ditto	Ole,	Muttra	ditto.
Ditto	Churki,	Jalaun	ditto.
Ditto	Wegni,	ditto	ditto.
Ditto	Purawa,	ditto	ditto.

The amount required to complete the police buildings in the province is considerable, and an annual allotment of Rs. 60,000 has been fixed for the four years succeeding 1882-83 for the purpose. The allotment for the year 1882-83 is Rs. 87,000, to which a special grant of Rs. 30,000 has been subsequently added.

Educational.—Muir College, Allahabad.—The tower is yet far from complete, as it is not possible to put a large number of workpeople on it owing to the circumscribed space, and because the work grows more and more difficult to execute the higher the tower is built. The great hall has been completed up to the level of the base of the dome, for which the centering has been erected. Considerable progress has been made with the flooring everywhere, and the work of painting and decorating has been commenced in several of the rooms. Doors and other fittings have been supplied,

and a steady advance towards completion is being made, month by month, in all directions.

The whole college may now be said to be fully three-quarters complete. The grounds around the college have been laid out for the most part, and approach roads have been more or less completed.

The statue of Sir William Muir has arrived, and the niche in which it is ultimately to be placed has been completed according to a design furnished by Mr. Emerson. the architect of the building.

The final total grant for the year for this building was :—

	Rs.
College	35,000
Flooring	6,500
Grounds	3,000
Total ..	44,500

against which the following expenditure has been incurred during the year :—

	Rs.
College	33,880
Flooring	7,789
Grounds	1,196
Tatal ...	42,865

or a total up to the end of the financial year 1881-82 of—

	Rs.
College	5,40,144
Flooring	29,168
Grounds	9,306
Total ...	5,78,618

against estimates of Rs. 5,96,190, Rs. 30,230, and Rs. 15,998 respectively. The question of *a meteorological office and science class-rooms* in connection with this college is still under discussion. This will occupy a distinct building, the site of which has not yet been finally fixed. It may reasonably be hoped the college proper

will be completed during the financial year 1882-83, or early in the year following.

A school for children of the employés of the East Indian Railway was completed *at Allahabad* at a cost of Rs. 5,000.

The High School at Rae Bareli was reroofed and two additional rooms built during the year.

Lunatic Asylums.—The enclosure wall round the Lunatic Asylum at Lucknow was completed early in the year.

Public Works Department.—The Public Works bungalow at Ballia has been built up to plinth level *and the out-houses* finished.

COMMUNICATIONS.—*Permanent approach to the Ken river, Bánda district, Fatehpur, Bánda and Saugor road.*—The work on the right bank has been entirely completed. There remains a good deal of rock blasting to be done on the left bank. A bridge-of-boats has been put up, which is duly taken down in the rains. The crossing with its approaches will be entirely completed during the financial year (1882-83); traffic already goes over it.

Chandrawal bridge, Cawnpore, Hamírpur and Saugor road, Hamírpur district.—This important bridge was completed, with the exception of the stone coping to the parapets, at a cost of Rs. 64,202, against an estimate for Rs. 66,211.

Completing second coat of metal on Cawnpore, Hamírpur and Saugor road.—An expenditure of Rs. 9,541 to the close of March, 1882, was incurred, against an estimate for Rs. 21,953, and four miles were completed during the year. The difficulty and cost of obtaining metal on this road in certain miles are very great. The sparing manner in which funds have from year to year been allotted to this road has considerably retarded completion. This is an important line of communication and the traffic over it is heavy. The completion of the Chandrawal bridge will no doubt tend much to increase the traffic.

Isan nadi bridge on the Cawnpore and Farukhabad Railway.—This bridge on the Grand Trunk Road is used both for railway and road traffic. The work was carried out under the Engineer-